Title: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS' AND HEALTHCARE PROVIDERS' PERSPECTIVE

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UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS' AND HEALTHCARE PROVIDERS' PERSPECTIVE

by

Francis George Koce

A thesis submitted to the University of Bedfordshire in partial fulfilment of the requirements for the degree of Doctor of Philosophy

February, 2018

Declaration

I, Francis George Koce declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

Understanding healthcare self-referral in Niger state (Nigeria): the service users and healthcare provider's perspective.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have cited the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
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UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDER'S PERSPECTIVE

Francis George Koce

Abstract

Healthcare self-referral leads to patients receiving care at an inappropriate level and for an unnecessarily higher cost. The patients who most require specialist services are unable to access them in an appropriate manner and the utilisation of Primary Health Care (PHC) services are undermined. In addition, healthcare providers at the referral level regarding care are overwhelmed with minor cases that would have been easily managed at the primary care level. Despite the implications of healthcare self-referral and the large proportion (60-90%) of patients self-referring in the Nigerian healthcare system, there is a dearth of information on the factors that influence healthcare self-referral from the Nigerian context.

Therefore, exploratory sequential mixed method approach was employed to address the objectives of this research which were: 1) identify the factors that influence service users' self-referral to secondary healthcare facilities by exploring the perceptions and experiences of the service users and healthcare providers (qualitative approach); and 2) examine the relationships between the identified factors that influence the decision to self-refer among the self-referred service users (quantitative approach).

Andersen's initial behavioural model was adopted as the theoretical model for this study. This model posits that individual's use of healthcare services is linked to their predisposing, enabling and need factors for care. Thus, the Andersen's components helped to structure and assist with the understanding of the factors linked with healthcare self-referral.

The interviews (qualitative) with the service users (n=24) and healthcare providers (n=18) were analysed using the five stages of framework analysis namely familiarisation with data, identification of thematic framework, indexing, charting, mapping and interpretation of data. This generated several themes associated with service users bypassing their primary healthcare facilities to the secondary level of care. The findings reflected perceptions regarding healthcare providers, equipment, expectations of service users, and advice from friends, relatives and others. Additional factors identified included government regulations on the utilisation of healthcare facilities, medical symptoms and the perception of severity of symptoms service users present with, in addition to an understanding of the healthcare delivery system among the service users.

The inferential findings of the quantitative analysis (n=449) ascertained significant differences between levels of education and understanding of healthcare delivery. Significant differences were also established between levels of education and the perceptions of healthcare providers. Further hypotheses that demonstrated significant differences comprised the relationship between employment status and ability to access the secondary level of care. The relationship between age and reported medical symptoms among the self-referred service users was also discovered to be associated with healthcare self-referral. Additionally, the descriptive analysis also disclosed diverse levels of agreement with each of the sub-scale items on the questionnaire. Overall, the quantitative findings were observed to corroborate with large parts of the qualitative findings.

The findings of this research suggest the need for a multifacet approach in addressing healthcare self-referral in the Nigerian context. This include ensuring the availability of the services of doctors within the PHC facilities, ensuring equitable distribution of equipped and

operational PHC facilities. In addition, there is need to educate the populace on the appropriate utilisation of the different levels of healthcare facilities.

In conclusion, an original approach to healthcare self-referral was demonstrated by adopting the exploratory sequential mixed method and Andersen's model to understand healthcare self-referral. The findings also contribute to this field by examining the relationships between the factors identified to predict healthcare self-referrals and consequently, offer recommendations, as it applies to the healthcare system in Nigeria.

Dedication

This thesis is dedicated to my lovely wife and daughter, thank you for the understanding, sacrifice and support. I remain indebted. Hoping to catch up the lost times with both of you.

To my father, who has been a source of encouragement and inspiration, thank you for sacrificing your time to drive me around the different facilities after the accidents I encountered. I remain grateful to my wonderful mother for the prayers and support.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
BHSS	Basic Health Service Scheme
CHEW	Community Health Extension Worker
CHO	Community Health Officers
CHW	Community Health Worker
CVI	Content Validity Index
ED	Emergency Department
FGD	Focus Group Discussions
FMoHN	Federal Ministry of Health Nigeria
GP	General Practitioner
GOPD	General Out-Patient Department
HBM	Health Belief Model
HMB	Hospital Management Board
HIV	Human Immunodeficiency Virus
I-CVI	Item Content Validity Index
LGA	Local Government Area
MDGs	Millennium Development Goals
NEEDS	National Economic Empowerment and Development Strategy
NEPAD	New Partnership for Africa's Development
NDP	National Development Plan
NHIS	National Health Insurance Scheme
NPHCDA	National Primary Health Care Development Agency
NSHDP	National Strategic Health Development Plan
NYSC	National Youth Service Corps
POS	Point of Service
PHC	Primary Health Care
S-CVI	Scale Content Validity Index
SHC	Secondary Health Care
SVG	Saint Vincent and the Grenadines

TB	Tuberculosis
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UCC	Urgent Care Centres
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States
WHO	World Health Organization

1.0 Chapter One: Introduction

This chapter provides an overview of the research. It outlines the research question, aims and objectives. It subsequently provides a general background to the study. A general overview of Nigeria's demography is also highlighted, which is followed by a discussion pertaining to evolution of the healthcare system in the country. Finally, the structure of the thesis is presented by highlighting the work undertaken in each of the chapters.

1.1 Describing and defining healthcare self-referral

The concept of a healthcare referral system has remained the same for all settings. This has continued to serve as an important aspect of healthcare delivery that safeguards good medical care and furthermore, improves the quality of patient care (Jarallah 1998). Hensher, Price and Adomakoh (2006) defined *healthcare referral* as, any process where assistance is sought by the healthcare providers from a higher level of the healthcare system. These professionals are seen to be better equipped, or specially trained, to guide less specialised providers in managing care, or to take over responsibility for a specific episode of a patient's clinical condition. This has also been described as a two-way process that ensures a continuum of care (WHO, 2014a).

Consequently, the World Health Organisation (WHO) (2014a) and Marinker (1988), emphasised that the roles played by an effective referral system include: 1) Ensuring that patients receive the best care at an appropriate level, that is not unnecessarily costly; 2) Hospital facilities are used optimally and cost-effectively; 3) Patients who most need expert services are able to access them in an appropriate manner and; 4) Primary health services are

well utilised and not undermined. Therefore, the structure of healthcare service delivery for most countries is arranged into a hierarchy of primary, secondary and tertiary healthcare levels (World Bank, 2011). The PHC facilities principally provide outpatient basic care, secondary healthcare facilities provide surgical, diagnostic, laboratory and emergency services, whereas the tertiary facilities are a specialised level of care, which are commonly teaching hospitals and are generally equipped with higher technology and a specialised work force (WHO, 2009). Thus, the term *self-referral* in healthcare is a concept that has been extensively used in research articles. This entails patients disregarding the primary/ lower levels and appropriate channels of care and proceeding straight to a facility offering a higher level of care without referral (Rasoulynejad, 2007). The primary level facilities are most accessible and may be lower in cost, but also have the most limited scope of services and are least demanding in terms of quality. In contrast, large hospitals are the least accessible and may be the most expensive, although they offer a wide range of services and are the most demanding in terms of quality (Dickinson, 1987).

Healthcare self-referral has been examined at different levels of the healthcare system and put into operation in line with the context and purpose of the studies. For example, various studies have examined issues related to self-referral to tertiary facilities (Kraaijvanger et al., 2015; de Valk et al., 2014; Lega and Mengoni, 2008), while others examined self-referrals to secondary healthcare facilities (Abdi et al.,2015; Visser et al., 2015; Guo et al., 2002). This has also been explored in relation to Accident and Emergency (A&E) units, General Out-Patient Departments (GOPD) or specific specialists providing secondary or tertiary levels of care.

Alternative terms have also been employed by further studies, such as *by-passing* the primary level facilities or *inappropriate utilisation* of the referral facilities, to describe healthcare self-referral (Visser et al., 2015; Kahabuka et al., 2011; Liu et al., 2008; Maharaj et al., 2013; Akin and Hutchinson, 1999). Nonetheless, the overall meaning behind these terms remain the same.

Primarily, the term referral facilities refer to the secondary, tertiary or quaternary levels of care, where applicable (Rasoulynejad, 2007). Therefore, in a broader sense, self-referral could be related to the secondary, tertiary or quaternary facility. Nevertheless, seeing as the next level of care after the primary level is the secondary level, and in the absence of studies in Nigeria that have explored and examined this subject in a secondary healthcare setting, this study therefore focuses on self-referral to the secondary level of care. In addition, due to time and resource constraints it was worthwhile limiting the focus of the present study to the secondary level. Therefore, with regards to this study, the term *self-referral* is defined as any service user presenting directly to the General Out-Patient Department (GOPD) of a secondary healthcare facility (General Hospital) without any form of referral.

1.2 Research questions, aims and objectives

Based on the gap in the literature, the research aim, question and objectives were formulated as presented below.

Aim:

- To understand why service users, self-refer to secondary healthcare facilities without prior utilisation of Primary Health Care (PHC) facilities.

Research question:

- What are the factors that influence healthcare self-referral from the perspectives of the service users and healthcare providers in Niger State, Nigeria?

Objectives:

Objective 1

- To identify the factors that influence service users' self-referral to secondary healthcare facilities by exploring the perceptions and experiences of the service users and healthcare providers.

Objective 2

- To examine the relationships between the identified factors that influence the decision to self-refer among the self-referred service users.

1.3 Background to the research

Institutional healthcare services started with the need to provide relief and sanctuary to the poor and infirm in medieval Europe (Healy and McKee, 2002; WHO, 1987). From their origin, hospitals were established to provide refuge for specific individuals who were unable to live

in the community, or who, due to their infection, posed a threat to the community (Randolph, 2009; WHO, 1987). However, a transition was witnessed in the post-medieval era in Europe with the proliferation of large hospitals and flourishing pioneering research. Therefore, medical treatment was no longer perceived as a privilege of the rich (at home) or charity for the poor (in hospital), but an essential human right (Buklijas, 2008). Furthermore, the healthcare system experienced a boost in the rapid advancement of the medical field after the Second World War, leading to the development and adoption of more sophisticated technology that have transformed hospitals into more complex and effective institutions. Thus, this technological advancement has improved our understanding of diseases and also how to control them (Grosios, Gahan and Burbidge, 2010; Saker et al., 2004; WHO, 1987).

It is documented that during the evolution of the healthcare system (roughly 1900 in the UK), the London Hospital was seeing an average of over 4200 out-patients in a week, which equated to over 700 patients a day. Patients were seen in the space of two to three hours each morning, with the average consultation lasting approximately one minute or less (Loudon, 2008). However, this increased into an unmanageable predicament, which led to criticism of the system. In response to said criticisms, it was decided there was a need to implement a primary level and referral level healthcare service design. Consequently, postgraduate medical professionals were divided into consultants with specialities (surgeons and physicians) and General Practitioners (GP) (Marinker, 1988). The GPs took on a gatekeeper role, whereby patients would be required to have a letter from their GP to be seen in an out-patient setting (Loudon, 2008). For most developing countries the idea of a referral system did not gain popularity until after the Alma Ata Declaration in 1978, which

emphasised the need for a functional referral system to support the PHC facilities (WHO, 1978).

The Alma Ata Declaration of 1978 summarises the role of PHC as:

> *"Essential healthcare based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing healthcare as close as possible to where people live and work and constitutes the first element of a continuing healthcare process"* (WHO, 1978, pp.3).

Therefore, PHC is intended to function in collaboration with the referral and specialist services to cope with problems which are beyond their scope (Lucas and Gilles, 2003).

In any system, the provision of functional PHC facilities remains imperative, without this, the referral facilities would be overwhelmed with cases that could have been dealt with effectively at the PHC level (Lucas and Gilles, 2003). Additionally, the WHO (1978), specified that it is equally important that hospitals do not offer treatment that could be provided by primary levels of the health service; adding that if they do, it will become overloaded and unable to provide proper support to the community. Therefore, for a referral system to

function effectively, PHC facilities should be maintained at an acceptable standard and each lower level health facility should be formally linked to the subsequent higher-level facility (Saddiqi et al., 2001).

Currently, of major interest following the Alma-Ata Declaration, has been to take note of conflicting concepts, policies and processes in the implementation of the PHC concept in various parts of the world (Bryant and Richmond, 2008). Accordingly, the PHC concept has evolved over many decades and tends to differ between industrialised and developing countries (Haq et al., 2009). What has been considered as PHC in well-resourced contexts has been oversimplified in settings where resources are constrained. Additionally, PHC in well-resourced settings is associated with physicians who specialise in family medicine or General Practice (GP), while in developing countries it is synonymous with low technology, non-professional care (WHO, 2008). For example, in Denmark, gatekeepers to secondary and tertiary care are self-employed GPs in PHC facilities (Vrangbaek, 2008; Vallgarda et al., 2002), whilst in Sweden, GPs are the custodians of PHC facilities (Anell, 2008; Leon and Rico 2002). Likewise, in the UK, GPs are frequently the first point of contact for patients and act as gatekeepers for access to secondary and tertiary care services (Boyle, 2008; Dixon and Robinson, 2002).

Globally, studies on healthcare referral systems have been more concerned with compliance or non-compliance with regards to referrals (Kim et al., 2013; Hirsch et al., 2012; Ilboudo, 2012; Musa and Ejembi, 2004; Peterson et al., 2004; Afsar et al., 2003; Kalter et al.,2003). Further studies have focused on analysing the patterns and quality of referrals regarding

specific conditions, such as cardiac diseases, meningitis in children, morbidly obese individuals, surgical care, paediatric referral cases and HIV positive individuals (Johnston et al., 2013; Hirsch, 2012; Aggarwal et al., 2011; Al-Namash, 2011; Macintyre et al., 2011; Blundell et al., 2010; Gjessing and Faresjö 2009; Akpede, 2005; Kalter et al., 2003; Font et al., 2002; Bowling and Redfern, 2000; Gardner and Chapple, 1999; Jarallah, 1998).

The subject on healthcare self-referral is, however, increasingly gaining interest among researchers. This is due to the potential for it to completely disorganise the benefits of the pyramidal structure of the healthcare referral system, if it is not adhered to as expected (WHO, 2014; Marinker, 1988) (See Figure 1 for representation of the pyramidal structure of healthcare delivery system).

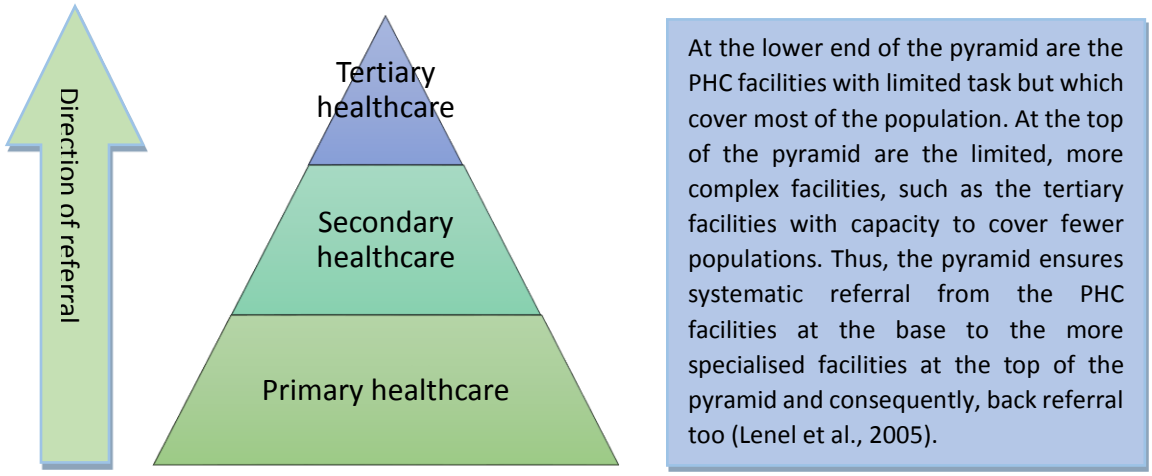


Figure 1: Pyramid regarding the healthcare delivery system.

The problem concerning healthcare self-referral takes different forms based on the context. This context is in direct relation to the variations observed in the operation of the healthcare systems in different countries. Nevertheless, attempts have been made to understand the

factors that facilitate or impede the circumvention of primary level facilities to referral facilities in different settings. Findings have shown that factors such as healthcare insurance (Aliu et al., 2014; Kangovi et al., 2013), knowledge of healthcare delivery (Abdi et al., 2015; Land and Meredith, 2013; Rasoulynejad, 2007) and access to healthcare facilities (Yaffee et al., 2012; Kahabuka et al., 2011; Bianco et al., 2003) are associated with patients seeking care at referral facilities. Additional factors identified include the availability of healthcare providers and equipment (Kraaijvanger et al., 2015; Linden et al., 2014; Forrest et al., 2001).

In a systematic literature review conducted by Kraaijvanger et al. (2016), which explored the motives for self-referral among patients, findings revealed that most available studies emanated from developed settings such as the US, the UK, Australia, the Netherlands and Japan, amongst others. Consequently, healthcare delivery differs in different settings.

Despite the adoption of the Alma-Ata Declaration as the corner stone of the Nigerian health policy in 1987 (Metz, 1991), healthcare delivery undertaken by PHC facilities has struggled to gain relevance. The World Bank (2010) noted that generally, the infrastructural condition of the PHC facilities in Nigeria are in an incredibly poor state with a lack of equipment to offer basic healthcare services to the communities they serve. They also added that despite the team of healthcare providers that are found in the PHC facilities (such as nurses, midwives and community health workers), the PHC facilities remain understaffed. The types of services also provided in the PHC facilities were observed to be predominantly child and maternal care which consequently limits the services they can deliver to communities (World Bank, 2010).

Notably, GPs and family medical practitioners (qualified doctors) are the principal care providers within PHC facilities in most developed countries. These contrasts with the Nigerian system, where most of the care providers within government owned PHC facilities are the CHWs and nurses (Abdulraheem et al., 2012; WHO, 2009). In addition, in well-resourced areas, PHC deals with a wide range of health issues, while in low income countries, PHC is narrowed to deal predominantly with common ailments (WHO, 2008). In addition, in Nigeria, healthcare services are typically financed by the individual patient. In comparison, in developed settings funding is sourced from general taxation or insurance (World Bank, 2013). Lucas and Gilles (2003) argued that the PHC concept was not intended to represent *second-best* medicine, acceptable only to the rural poor and urban slum dwellers; nor was it a stopgap solution to be replaced by something better at a later stage, as perceived in developing countries. However, the PHC approach was intended to be a feature of all health services (Lucas and Gilles, 2003). Therefore, the services provided should reflect and evolve from the economic conditions and social values of the country and its communities. It is also expected that this will vary between countries (Bryant and Richmond, 2008).

The Nigerian healthcare system has witnessed several reforms since its independence in 1960 (Asuzu, 2004). One of the defining eras was the introduction of the Basic Health Service Scheme (BHSS) during the third National Development Plan (NDP) (1975-80) (Osibogun, 2004). This witnessed the introduction and proliferation of health centres, comprehensive health centres and primary health centres within communities (Scott-Emuakpor, 2010). The fourth NDP (1981-85) further witnessed the enactment of policy for the provision of a comprehensive healthcare system offering promotional, protective, restorative and rehabilitative services. This led to the formulation and development of a national

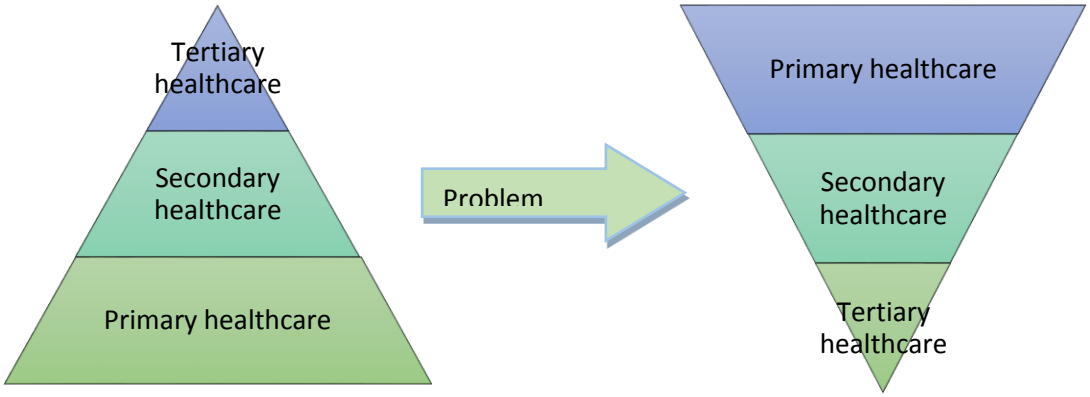
comprehensive healthcare scheme, where healthcare services are provided across three levels (primary, secondary and tertiary health facilities) (Lambo, 1982). Despite the provision of care in three tiers, the Nigerian healthcare referral system has continued to be a challenging area with patients utilising the referral facilities as they deem fit (Makama, Iribhogbe and Ameh, 2015; Lambo, 1982). Additionally, very little is known in Nigeria relating to the reasons service users' by-pass the primary level facilities to the referral facilities due to the exceedingly limited local literature available on this subject. Available literature, such as Akande (2004) was concerned with reporting the rates of service users self-referring, while Aguwa et al. (2010) concentrated on the demographic descriptions of self-referred service users. Recent study by Okoli et al. (2017) however focused on federal civil servants in a work environment rather than patients in a healthcare setting. Jahn and De Brouwere (2001) emphasised that given the diversity of health systems, geographical conditions and infrastructure, it is impossible to develop a global, generally applicable blueprint for referral systems. Therefore, the need for a contextual approach in understanding this problem is essential when we consider the Nigerian healthcare system.

1.4 Rationale

Following Nigeria's independence in 1960, there have been several attempts to improve healthcare delivery in Nigeria. Despite the proliferation of healthcare facilities and segmentation into three levels during the different periods of the NDP, an incessant call remains for new reforms to take place in the Nigerian healthcare system (Nwabueze, 2014). The strengthening and establishment of a standard referral system in Nigeria, through the linkage of PHC facilities to referral facilities, has been one of the major objectives of the

National Primary Health Care Development Agency (NPHCDA), (2013). There have, however, been challenges to accomplishing this objective. The Federal Ministry of Health, Nigeria (2011) noted that the three tiers of healthcare delivery in Nigeria do not operate as expected, with tertiary, secondary and primary healthcare not being accountable to one another. As a result, 60 to 90% of patients are reported to bypass PHC facilities and go to referral facilities in Nigeria (Okoli et al., 2017; Aguwa et al., 2010; Akande, 2004).

Therefore, the distortion of the normal pyramidal structure in the healthcare referral system (see Figure 2 for illustration) has resulted in an inverted pyramid due to the circumvention of lower level facilities in Nigeria. This has led to PHC facilities in Nigeria becoming underutilised and unrecognised, wasting the resources and skills of the healthcare providers serving those facilities (Asuzu, 2004).



Normal healthcare pyramid Distorted healthcare pyramid

Figure 2: Representation of a normal and distorted healthcare pyramid.

Additionally, referral facilities have become overloaded with patients beyond their capabilities. This has led to healthcare providers in referral facilities being over-burdened with largely minor ailments that could have been easily taken care of at PHC facilities (Makama, Iribhogbe and Ameh, 2015; Osibogun, 1996).

The role of the referral facilities (secondary and tertiary facilities) in managing advanced medical conditions and engaging in research is noted to be seriously undermined in the Nigerian healthcare system (Abodunrin et al., 2010a). Consequently, alarming rates of Nigerian patients are seeking care abroad due to their inability to receive the care they require at referral facilities. This has been termed *medical tourism* (Wapmuk et al., 2015). It is estimated that medical tourism consumes in the region of $200 million (roughly £165 million) annually from the Nigerian system (Muraina et al., 2012). This practice is said to cut across different social classes and status, and is no longer an attribute of the elite in Nigeria (Ahinfenwa, 2014; Makinde et al., 2014; Muriana et al., 2012).

In addition to the above, in 2015, President Mohammadu Buhari declared his government would construct 10,000 PHC facilities across the 774 Local Government Areas' (LGA) (Gimba, 2016). Although this may seem a positive move, without an adequate understanding of *why* service users currently utilise facilities the way they do, the healthcare system is likely to continue to repeat the patterns observed thus far; including the underutilisation of PHC facilities. Therefore, it is likely that resources invested in the proposed facilities will be wasted, as patients will continue to self-refer and hence, over-burden the higher-level referral facilities (Abodunrin et al., 2010b). It is important to mention that there is a dearth of

knowledge on the issue of healthcare self-referral in Nigeria, which serves to highlight the magnitude and appropriateness of this study.

Many of the available studies published to date on healthcare self-referral have been centred on service users and conducted within developed environments (Kraaijvanger et al., 2016; Aliu et al., 2014; Valk et al., 2014; Land and Meredith, 2013; Lega and Mengoni, 2008; Bianco et al., 2003; Forrest et al., 2001; Gross et al., 2000). In addition, globally, there are very limited studies (Visser et al., 2015; Alyasin and Douglas, 2014; McGuigan and Watson, 2010; Rieffe et al., 1999) that have shown interest in investigating the relationships between the different factors that are linked with healthcare self-referral.

Amongst others, Visser et al. (2014) noted a significant association between education and respondents' perception, that PHC staff do not treat patient kindly, they highlighted that the more educated self-referred respondents were more likely to hold that perception. Likewise, Alyasin and Douglas (2014) reported that level of education was linked with patients perceiving their conditions as urgent which impacted on them self-referring. They found that patients with less than high school education perceived their condition as more urgent compared to those who had completed college/university education. Despite, the understanding that aside from the individual factors predicting utilisation of healthcare services, the relationships between those factors are also important (Andersen, 1995), which ensures interventions that target multiple determinants to be developed (U.S. Department of Health and Human Services, 2017).

Moreover, in Nigeria, no study was established to have explored the position of service users and healthcare providers on the issue of healthcare self-referral. Given the complexity and dynamics of healthcare delivery system in different settings and the possible multifaceted dimension that different factors can be related, it was important to understand how different factors interact with one another to impact on healthcare self-referral in a setting like Nigeria. Therefore, this study sets out to explore this subject among service users and healthcare providers and subsequently examine the relationships among different factors as suggested from the exploratory findings, with the aim of developing a comprehensive understanding of the problem.

It is expected that this study will add to the understanding of the factors that influence healthcare self-referral. It is also anticipated that the findings from this research will be a source of knowledge on which recommendations may be based, regarding the implementation of future policy on operating an effective referral system in Nigeria. This will guide policy makers on which factors need to be addressed in making public PHC facilities more functional and allowing the referral facilities to live up to their mandate. In addition, findings from this study may also be applicable to other contexts similar to that of Nigeria.

1.5 Local context

1.5.1 Demographic description

Nigeria is located within West Africa, bordered in the West, North, East and South by the Republic of Benin, Niger, Chad and Cameroon, in addition to the Atlantic Ocean respectively.

It lies between 4°16 and 13°53 North of latitude and 2°40 and 14°41 East of longitude, covering 923,768 square kilometres (National Bureau of Statistics, 2010). It is a multi-cultural society divided into 36 States and Abuja, the Federal Capital Territory. Although the official language of Nigeria is English, the country has over 250 ethnic groups (Lewis et al., 2016; Kombe et al., 2008). The country is also religiously diverse comprising Muslim, Christian and traditional African beliefs. The population in the north is predominantly Muslim, while those residing in the east of the country are predominantly Christian (Kombe et al., 2008).

The educational sector of the country has continued to be a challenging area with a national adult literacy level of 61.3%. However, marked variations exist between States. For example, Lagos State has a literacy level of approximately 92%, whereas Borno State struggles with a literacy level of roughly 14.5% (UNESCO, 2012; WHO, 2014b).

The World Bank (2012) approximated the country's population as 162,470,737 in 2011, which therefore makes Nigeria the most populous African country, accounting for 47% of the West African population. However, the poor condition of Nigeria's healthcare system also continues to present a significant challenge, evidenced by high levels of morbidity and mortality and a low life expectancy at birth (54 years for both sexes) (WHO, 2015a).

WHO, (2015a) also documented that the major contributors to the disease burden of the country in 2012 were malaria, Tuberculosis (TB) and Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS). An estimated 2.9 million people live

with HIV in Nigeria, while 75% of malaria deaths occur in children under-five, and one in ten maternal deaths are due to malaria. The prevalence of HIV/AIDS has also led to an increase in TB, with approximately 27% of adults with TB also being infected with HIV (Africa Health Workforce Observatory, 2008). Nigeria also fared poorly compared to other sub-Saharan African countries with specific health indicators. For example, its maternal mortality ratio of 814/100,000 live births and an under-five mortality rate of 109/1000 live births in 2015 is one of the highest in the world (World Bank, 2016a and World Bank 2016b). Also noted to be on the rise is the prevalence of non-communicable diseases in the country, such as hypertension, coronary heart diseases, cancer and diabetes (Niger State Government of Nigeria, 2010).

1.5.2 Evolution of healthcare in Nigeria

Figure 3: Summary of the different periods of healthcare development plans in Nigeria.

Colonial era

Figure 3 provides a summary of the different periods of healthcare development plans in Nigeria. Regarding the pre-colonial era, health sector development in Nigeria is principally unrecorded. However, healthcare delivery before the colonial era was largely provided by the traditional bonesetters, traditional surgeons, traditional birth attendants, diviners and koranic healers (Aja, 2001). As such, this largely unrecorded period corresponds with traditional health services that existed in individual Nigerian communities and ethnic groups prior to the western (British) colonisation (Asuzu, 2014). Despite the arrival of the colonial authorities during the colonial era, orthodox healthcare (a system where medical doctors, nurses and other healthcare professionals deliver treatment to the patients by means of pharmaceuticals or surgery) was only provided to the colonial administrators and their family members. Likewise, most Nigerian people at that time depended on traditional medicine with no access to orthodox healthcare (Aja, 2001).

It is documented that the colonial government health services initially emerged as clinics operating for the occupying colonial military services. These were later transformed to general clinics and hospitals (Asuzu, 2014). Public health services in Nigeria and other parts of the West African protectorate are said to have emanated from the British Army Medical Services. Thus, the integration of the army medical service in conjunction with the colonial government witnessed the extension of medical care to the local civil servants and, eventually, to the local population (Adeyemo, 2005).

In tandem with the influence of the British Army Medical Services, the colonial era also witnessed the influx of missionaries into Nigeria. Consequently, denominations such as the

Catholic Mission, Anglicans, Sudan United Mission, Sudan Interior Mission and Baptist Mission played a vital role in the provision of healthcare services to the people of Nigeria during this period (Scott-Emuakpor, 2010). This was particularly so in the south and middle belt of Nigeria (Adeyemo, 2005). It is also documented that western medicine was formally introduced into Nigeria by the missionaries, evident by the first hospital in Nigeria, *the Sacred Heart Hospital*. This hospital was built in the city of Abeokuta by the Roman Catholic mission in 1895 (Sacred Heart Hospital, 2012). By 1960 the Roman Catholic Missions accounted for approximately 40% of mission-based hospital beds. During this period, the mission-based hospitals were greater in number than the government hospitals (118 mission-based hospitals compared with 101 government hospitals) (Metz, 1991).

In addition to the medical interventions offered, the mission-based hospitals also played a key role in offering medical education to the local populace. This laid the foundation for a more extensive spread and acceptance of modern medicine over the coming years (Metz, 1991). It is also worth noting however, that anecdotal reports regarding the missionary healthcare facilities suggest they were primarily used as tools for attracting converts and expanding their followership (Ajovi Scott-Emuakpor, 2010). Regardless, it was not until after World War II, and as a consequence of agitation from pro-independence groups, that the colonial government decided to extend modern health and educational facilities to the Nigerian population. This led to the establishment of the University of Ibadan in 1948 which included the first faculty of medicine in Nigeria, also known till this date as the *University College Hospital*, as well as the establishment of several Schools of Nursing and Pharmacy (Metz, 1991).

In the 1940s, the Colonial Development Plan was produced although it was criticised for many deficiencies, particularly related to health services centred on a unitary health service system (Adeyemo, 2005; Asuzu, 2004). A series of political and constitutional changes were then observed during the 1950's leading to independence in 1960. The earlier plan of 1946-55, framed by the colonial administrators, was centred on development and welfare (this was subsequently extended to 1962). This plan established the Ministry of Health to coordinate health services throughout the country, including those provided by the government, private sectors and mission-based health facilities (Metz, 1991). Notably, during the 1950s, the national health system stopped being unitary and regional governments began to operate independent and occasionally parallel health systems alongside the Federal Government (Asuzu, 2004).

Post-colonial era

The immediate post-colonial era witnessed strategic plans for development. This led to the provision of basic health facilities and services which were concentrated in urban areas. As such, rural areas generally lacked access to care (Aja, 2001). There has been limited advancement to date to address this imbalance and to keep pace with global health developments. The 1962-68 development plan was recognised as the first national development plan. However, this plan was also developed by colonial administrators prior to Nigerian independence; thus, it was viewed as a series of projects that had not been coordinated or related to any overall target (Metz, 1991). Nevertheless, one of the highlighted health policy statements, in the 1962-68 development plans related to the recognition that clinical medicine alone was unable to provide permanent improvements to the nation's

health issues. Consequently, the need for steady advancement in factors such as housing, good water supplies, sanitation and nutrition were emphasised in relation to improved quality of life (Lambo, 1982).

The second National Development Plan (1970-74) was greatly impacted upon by the Nigerian Civil War (Biafran War). The plan centred on post-war reconstruction; restoring reproductive capacity and replacing physical assets damaged and destroyed during the war (Metz, 1991). At this time there was also a deliberate attempt to produce a comprehensive national health policy which addressed issues such as the provision of comprehensive healthcare. This incorporated; a basic healthcare service scheme, efficient utilisation of health resources and medical research and disease control (Adeyemo, 2005). This contemporary plan highlighted a failing in the first NDP; specifically, the lack of success in moving from a focus on curative care to an emphasis on preventive care was highlighted. The failing was evidenced by the fact that preventive disease still accounted for a large percentage of morbidity and mortality in Nigeria. Despite this observation, the second NDP still witnessed budget capital expenditure tailored towards *curative* services, four times more than that of the preventive services (Lambo, 1982). Equally, the second NDP failed to articulate a clear pathway for the health system regarding the assignment of responsibilities to the three tiers of government (Asuzu, 2004).

Driven by the excitement of the escalating oil price of 1974, numerous projects were approved by the Ministry of Economic Development, without appraisal of the feasibility, costs and benefits; thus, the third National Development Plan (1975-80) had projected a twelvefold

increase in its annual public capital expenditure over the past developmental plan period (Metz, 1991). The rather ambitious intentions of the third NDP also spilled over into the health sector, with the projection related to increasing the population receiving healthcare of between 25to 60% (Adeyemo, 2005). The idea was to realise this objective by way of the provision of the Basic Health Services Scheme (BHSS) provided by a network of health clinics, primary health and comprehensive health centres based in communities and villages close to the people. These were also to be served by personnel, with appropriate community health training from medical schools and state health technology schools (Lambo, 1982). Despite significant progress, the reform plans were heavily centred on infrastructures without a clear policy framework. The reforms were noted to have neglected the distribution of roles to the three levels of government. Additionally, factors such as manpower development, resource generation, services to be delivered by different levels of government and health professional manpower for the services were not taken into consideration (Asuzu, 2004).

The principal government health policy during the fourth National Development Plan (1981-85) was to institute a comprehensive healthcare system offering promotional, protective, restorative and rehabilitative care to the population. These services were to be delivered across the three levels of care and moreover, PHC was to render the basic health services, delivered in health centres, dispensaries and clinics in rural, sub-rural and urban areas. Secondary level facilities were to serve as referral facilities supporting the primary and tertiary facilities. Finally, tertiary levels of care were services to be offered at specialist and teaching hospitals which in turn supported the secondary as well as the primary facilities (Lambo, 1982).

The core of the fourth NDP concerning the health sector also centred on the Basic Health Service Scheme (BHSS). However, these suffered setbacks due to total neglect. Consequently, the focus shifted from instituting a formidable BHSS to establishment of teaching and specialist hospitals which was evident in the budgetary allocation to these projects, during these periods (Adeyemo, 2005). Nevertheless, as the oil revenue was falling at that time, several plans were no longer feasible, seeing as oil was the major source of income for Nigeria. The health sector was not the only sector affected by this, although there was a ripple effect on other sectors as well, which witnessed a reduction in growth (Metz, 1991).

Due to the poor performance of the fourth NDP, there was need for extensive consultation prior to the development of the fifth NDP (Ejumudo, 2013). Thus, the launch of the fifth NDP was subsequently delayed for two years. When it was finally launched in 1988, the plan primarily centred on diversifying the economy based on the fall experienced in oil generated revenue, which had impacted on all aspects of the nation's economy (Ibietan and Ekhosuehi, 2013).

In August 1987, the PHC plan was launched by the Federal Government of Nigeria to serve as the cornerstone of healthcare provision. The government health policies, however, suffered criticism for the abrupt abandonment of the fifth NDP towards the end of 1989. The explanation given by the government at that time was that a fixed five-year plan wasn't suitable anymore for a struggling economy like that of Nigeria due to the associated uncertainties. Therefore, a *rolling plan* was introduced from 1990-92 which was revised at the end of each year (Metz, 1991).

Metz (1991) also noted that despite the introduction of the *rolling plan*, many problems still persisted into the 1990's. Moreover, of significance was the obvious differences which continued with respect to the availability of medical facilities among the regions, between urban and rural settings and furthermore, between the poor and the rich. Consequently, the *rolling plan* was unfortunately described as a *stillbirth,* as so little was achieved (Ibietan and Ekhosuehi, 2013).

The approach that followed later included the adoption of programmes that were initiated from international bodies, such as the Millennium Development Goals (MDGs) or the New Partnership for Africa's Development (NEPAD). Programmes were also adopted from within Nigeria, such as the National Economic Empowerment and Development Strategy (NEEDS), Vision 20:20:20, 7 Point Agenda and the Transformation Programme. The argument persists that programmes adopted from outside Nigeria were aimed at integrating Nigeria into the global, especially Western, systems. Such programmes were negatively viewed as an imposition of ideology from above, and not relevant to the specific interests of the Nigerian people (Ujo, 2014).

The aforementioned developments paved the way for the creation of the National Strategic Health Development Plan (NSHDP) 2010-15. This plan aimed to align international health treaties with national health development initiatives. Eight important areas were formulated to be anchored by the NSHDP and overseen by specific State governments, specifically: "Leadership and Governance; Health Service Delivery; Human Resources for Health; Financing for Health; National Health Management Information System; Partnerships for Health; Community Participation and Ownership; and Research for Health" (Federal Ministry of

Health Nigeria, 2010, pp. 15: WHO, 2014b). Likewise, in Nigeria, a national policy was instituted in 2011, referred to as 'PHC under one roof (PHCUOR)'. The goal was to reduce fragmentation in the delivery of PHC services which involved the integration of all PHC services under one authority. Accordingly, one of the core principles of this policy was to ensure an effective referral system between and across the different levels of healthcare delivery (Health Partners International, 2014; Sokpo and Mckenzie, 2012).

It should be mentioned that different development plans spanning the colonial, post-colonial, national rolling plans and the adopted programmes have been developed and implemented with mixed results (Federal Government of Nigeria, 2010). Accordingly, the Federal Ministry of Health, Nigeria (2011), highlighted that the three tiers of the healthcare system in Nigeria operate autonomously; with the tertiary, secondary and primary healthcare tiers not being accountable to one another. This has led to the need to establish an operational standard healthcare system and to strengthen the healthcare referral system in the country (NPHCDA, 2013). Nevertheless, the resulting landscape of healthcare provision across Nigeria is one that requires continuous effort before it can be seen as consistent, dependable, equal and operational.

1.5.3 Funding of Nigeria's Healthcare System

Direct tax/general revenue, social or state insurance, private insurance and direct payment by users are among the different types of healthcare system funding adopted by different countries (Hunter, 2008). Healthcare funding in Nigeria is predominantly through direct payment by service users. The World Bank (2013) reported that out of pocket expenditure on

health in Nigeria accounted for 95.4% of the total expenditure on health between 2009 and 2013.

According to WHO (2008), between 2007 and 2010 only 2% of Nigeria's GDP was allocated to healthcare. This was despite the Abuja Declaration of 2001, in which the Heads of State for African Union countries pledged to allocate at least 15% of their total annual government budgets to the health sector. This has not been the case in relation to Nigeria (WHO, 2011). In 2016, the Nigerian government only managed to spend 3.6% (2.2 billion naira) of its total national budget on health (Federation Ministry of Budget and National Planning, 2016). Moreover, only a few African countries have reached the 15% target regarding the Abuja Declaration, this includes Rwanda, Botswana, Niger, Malawi, Zambia and Burkina Faso (Senghore, 2011; WHO, 2011).

In Nigeria, an attempt was made with the introduction of the National Health Insurance Scheme (NHIS) in 2005. This was launched by the Federal Government of Nigeria with the objective of providing Nigerians with easy access to affordable and quality healthcare. The scheme involves an advance payment for health expenditure into a common pool, based on specific plans or policy via contributions, premiums or taxes (National Health Insurance Scheme, 2016). The services offered were initially meant to cover the employed, urban self-employed, tertiary students, armed forces, pregnant women, children under-five, disabled and prison inmates. However, despite the establishment of the Nigeria NHIS, it has struggled to gain national coverage. It is reported that only about 3% of the entire population of Nigeria are covered (Dutta and Hongoro, 2013).

1.5.4 Organisation of healthcare delivery in Nigeria

The Nigerian health sector comprises the public sector, Community Based Organisations (CBOs), private for-profit, Non-Governmental Organisations (NGOs) and traditional healthcare providers. Majority of the facilities are public government facilities. Conspicuously, 38% of the registered facilities within the Federal Ministry of Health database are noted to be privately owned. Additionally, of these privately-owned facilities, 75% are PHC facilities, whilst the remaining 25% are secondary level facilities (NPHCDA, 2013; Kombe, et al., 2008).

As a federation, Nigeria operates three tiers of government, specifically; Federal, State and Local Government. The policies that are relevant across the three levels of government are developed by the federal government and are responsible for providing technical assistance, co-ordinating State goals set by the national health policy, as well as evaluating and implementing policies. As such, the provision of health services in the public sector reflects the three-level structure (Kombe et al., 2008; Asuzu, 2004; African Development Fund, 2002), (see Figure 4 below for a representation of the levels of healthcare delivery in Nigeria).

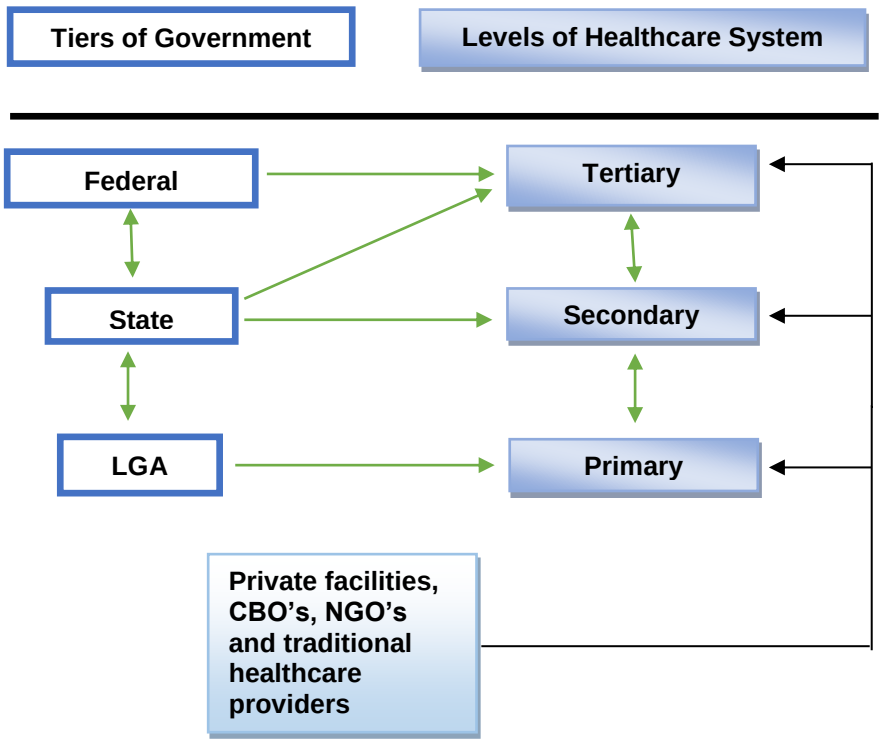


Figure 4: Levels of Healthcare delivery in Nigeria.

(Adapted from the Technical Working Group (TWG) – National Strategic Health Development Plan Framework (TWG-NSHDPF), 2009).

In Nigeria, in theory, the PHC should be the community entry point into the healthcare system. However, this does not operate as intended. Nevertheless, it continues to be the bed rock of the health system which largely serves the rural area, where the greater population of Nigerians reside. Facilities in the PHC category include; health centres, clinics, dispensaries and posts, which generally provide curative, preventive, promotive and pre-referral care (Abdulraheem et al., 2012). These facilities are typically staffed by nurses, midwives, senior Community Health Extension Workers (CHEW), junior CHEW, environmental health officers and Community Health Officers (CHO) (Federal Republic of Nigeria Draft, 2007). The 774 local government areas in Nigeria are responsible for operating the PHC facilities within their areas

which include; provision of basic outpatient care, community health, sanitation and hygiene services. These roles are, however, coordinated by the State's Ministry of Health (African Development Fund, 2002).

Secondary level services are provided in general hospitals and comprehensive healthcare centres. These facilities are overseen by the State government and offer various specialised services, for instance curative care, radiological, diagnostic, referral and emergency medical and surgical services (Federal Ministry of Health Nigeria, 2011).

The tertiary services are highly specialised and are supposed to focus primarily on research, curative care and teaching (Federal Ministry of Health Nigeria, 2011). In addition to the specialised services, tertiary facilities also serve as referral facilities for the primary and secondary levels of care (Federal Ministry of Health Nigeria, 2004).

The health workforce in Nigeria has been described as *inadequate* in relation to the health needs of the country. Moreover, the shortages are noted more acutely in the Northern zones and rural areas of all zones (Nigeria Academy of Science, 2009). For example, Nigeria struggles with an average of 12 doctors per 100,000 of the population, while some zones (notably the north east and north west) only have about 4 doctors per 100,000. The ratio for nurses and midwives stands at 21 per 100,000 nationally (National Human Resources for Health Strategic Plan, 2007), while the general population of Community Health Practitioners in Nigeria is

approximately 115,000 registered practitioners (Community Health Practitioners Registration Board of Nigeria, 2013).

Further aspects of concern that have plagued the healthcare system in Nigeria are the issues of inadequate incentives, lack of conducive environments, poor equipment and infrastructure. All of which are noted to cause dissatisfaction and low motivation amongst health professionals, resulting in a *brain drain* in the health sector due to the migration of healthcare professionals to other countries (WHO Regional Office for Africa, 2004). In addition, the lack of basic amenities, dilapidated structures, poor and uncoordinated referral systems are several of the other challenges observed in the healthcare system (Federal Ministry of Health Nigeria, 2005).

1.6 Outline of thesis

This thesis is presented in 9 chapters. Chapter 1 has been presented above. Therefore, the summary of the subsequent chapters is provided below.

1.6.2 Chapter Two

This chapter reviews the existing literature related to healthcare self-referral and provides a background to current knowledge on factors identified to influence healthcare self-referral, as reported in different contexts.

1.6.3 Chapter Three

This chapter discusses some of the healthcare behavioural models to find a theoretical framework for this study. It also finally provides a rationale for adopting Andersen's healthcare utilisation model as the model for this study.

1.6.4 Chapter Four

This chapter discusses the methodology of the study. The research design is described with the provision of a rationale for the design. The epistemology underpinning the study is also provided. Finally, a detail description of the research setting is also presented.

1.6.5 Chapter Five

The different methods adopted to address the first objective (qualitative approach) of this study were discussed in this chapter. These included the data collection method, sampling, sample size, the recruitment procedure and analysis adopted for the service users and healthcare providers.

1.6.6 Chapter Six

This chapter presented the findings for Objective 1 (qualitative findings), detailing the views of the service users and healthcare providers on factors that influence the decisions to bypass the primary level of care for the referral levels. The findings were also further discussed in relation to other literatures in this chapter.

1.6.7 Chapter Seven

This chapter focused on discussing the methods adopted for Objective 2 (quantitative approach) of this research. It discussed the development of the quantitative data collection tool and the piloting of the tool. It also addressed the different methods (sampling, sample size, data collection and analysis) adopted for the main study.

1.6.8 Chapter Eight

This chapter presented the findings for Objective 2 (quantitative approach), detailing the recruitment outcome, normality assumption, the descriptive and inferential findings. It further discussed the findings with reference to other literatures.

1.6.9 Chapter Nine

Finally, this chapter presents a broad discussion of the entire thesis by integrating the findings from Objectives 1 and 2 (qualitative and quantitative findings). Therefore, it discussed how the findings from the qualitative and quantitative phase compared and connected. It also highlights the methodological considerations, noting the weaknesses and strengths of the study. It further discussed the implications for policy and practice, besides future research.

2.0 Chapter Two: Literature Review

2.1 Introduction

The success of any government interventions in ensuring an effective referral system is highly dependent on being able to identify what factors need to be addressed from the local context and the successful implementation of those strategies (Murray and Pearson, 2006). Therefore, this section draws on aspects of the literature relevant to the objectives of this research. It reviews global and local literatures on healthcare self-referral, to understand what factors and challenges have been highlighted in different contexts that facilitate or impede healthcare self-referral.

Notably, literature review takes the form of systematic or narrative review. One of the key characteristics of a systematic review is that a strict protocol is followed. This use explicit and rigorous methods to identify, critically appraise, and synthesise relevant studies to answer specific, often narrow clinical questions in depth. In addition, systematic review questions are formulated around the Population, Intervention, Comparison and Outcome (PICO) elements. In contrast, narrative review deals with broad perspective of an issue. Thus, this form of review has been criticised for its bias in using unsystematic and objective methods not based on rigorous criteria as the systematic review. Nevertheless, narrative review remains useful for describing and understanding the context of a problem (Ham-Baloyi and Jordan, 2016; Cook, Mulrow and Haynes, 1997).

Therefore, narrative review was adopted for this study with the aim of discussing the literature from a contextual perspective. In addition, the noted heterogeneity of studies in this area such as studies from developed and developing settings; studies having different methodologies (qualitative and quantitative approaches); and studies among service users and others among healthcare providers, deemed it more appropraiate for narrative review to understand the general context of the problem. Nevertheless, given some of the criticism associated with narrative review, Ferrari (2015) suggestion was adhered to, by borrowing from the systematic review methodologies. This included stating out the inclusion and exclusion criteria, the journal database that were searched and also the search terms that were applied using the Boolean string.

Accodingly, the review considered studies specifically related to healthcare self-referral to referral facilities. Studies on mental health disorders examining specific services designed for mental health patients to self-refer themselves were excluded. Relevant journal databases such as AMED, CINAHL Plus, Global health, MEDLINE, Pubmed, ScienceDirect, PsychARTICLES and PsychINFO were investigated. The search terms applied to identify the relevant literatures included; [‘self-refer*’] and [‘health*’ or ‘facilit*’ or ‘secondary healthcare’ or ‘tertiary healthcare’], [‘Bypass*’] and [‘health*’ or ‘facilit*’ or ‘primary healthcare’ or ‘secondary healthcare’ or ‘tertiary healthcare’], [‘inapprsopriate utilis*’] and [‘health*’ or ‘facilit*’ or ‘secondary healthcare’ or ‘tertiary healthcare’]. Studies were however, restricted to those published in English language. In addition, references pertaining to the identified literatures were also searched for in relevant studies.

2.2 Factors associated with healthcare self-referral

Notably, due to the limited literatures on healthcare self-referral among healthcare providers, the few identified literatures concerning this subject among healthcare providers were combined with that of the service users. Therefore, a review of the literatures highlights the following factors discussed below, to be linked with healthcare self-referral in different contexts (Figure 5 presents the identified factors obtained from the literature).

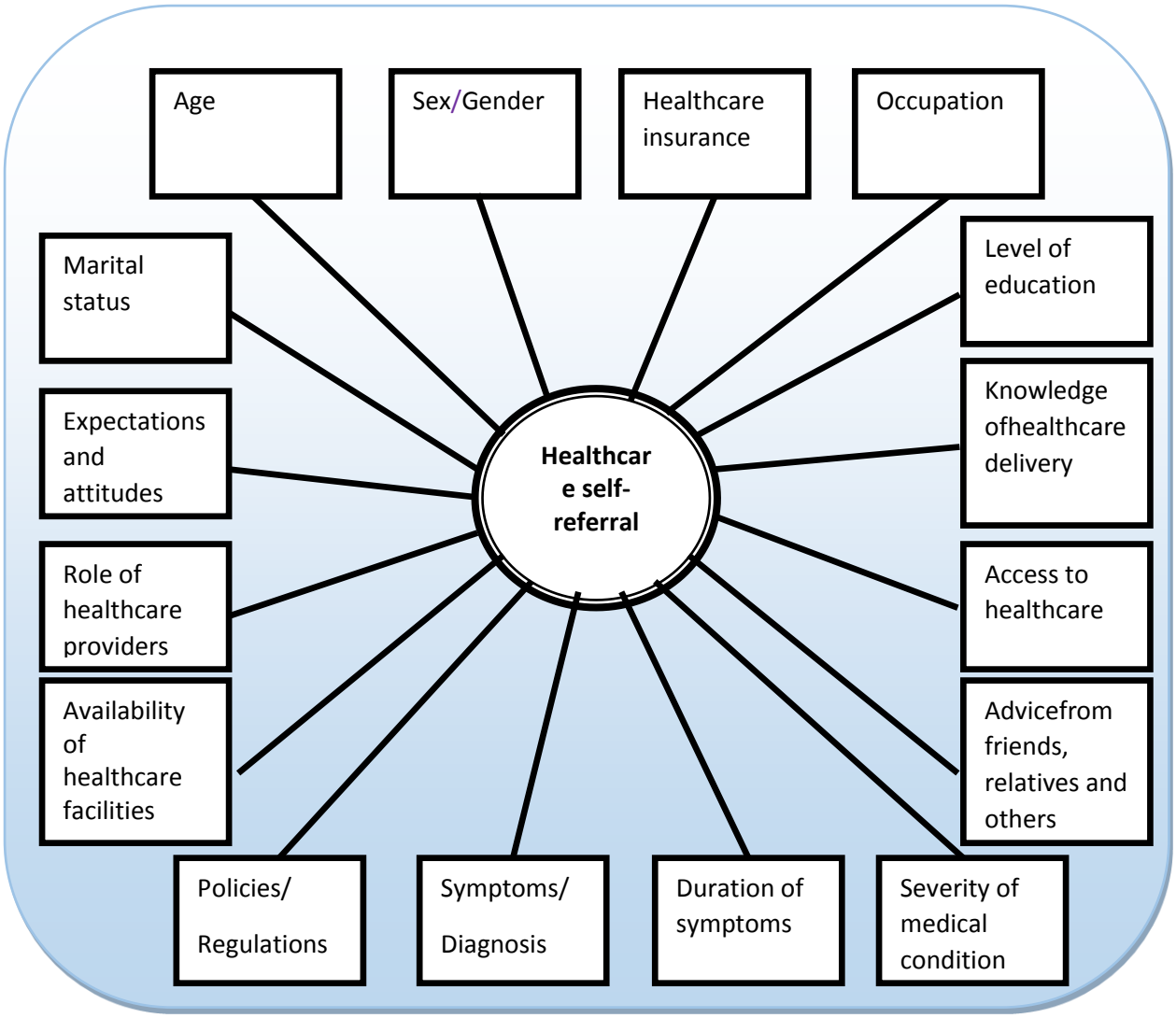


Figure 5: Factors identified to be linked with healthcare self-referral.

2.2.1 Age

Studies on healthcare self-referral have examined the influence of age with regards to circumventing PHC facilities to seek care at the referral level. However, mixed findings have been observed. For example, a study was conducted in Italy by Bianco et al. (2003) to determine the non-urgent use of the emergency department in a hospital setting rather than a PHC facility. This study uncovered that younger patients were significantly more predisposed to utilise the emergency department for non-urgent visits than their PHC facility. In the Netherlands, de Valk et al. (2014) observed that patients between the ages of 18-35 were more likely to self-refer to the emergency unit of a tertiary healthcare facility. This was consistent with the findings reported by Linden et al. (2014) which highlighted that being of a younger age group was an independent predictor of self-referral to the emergency department of a tertiary referral facility in the Netherlands. In an additional Dutch study, Kraaijvanger et al. (2015) ascertained that younger age groups in their study were more likely to self-refer themselves. They, however, remarked that majority of participants in their study were between 18-39 years, which may have skewed the finding due to the greater number of participants in the younger age range.

In Ethiopia, Abdi et al. (2015) investigated the determinants of patients' self-referral to the General Out-Patient Department of a secondary referral facility. They reported that majority of patients in their study were between the ages of 25-34, which accounted for 37% of the self-referred population. Nevertheless, age was not determined to have a significant association with self-referral in their study.

In contrast to the above findings, older age was linked significantly with self-referral to the emergency unit in Israel (Rassin et al., 2006). Rassin et al. (2006) suggested that this was possibly due to older patients without social support received better care at the emergency department and were not left alone, when compared to the care received from their community physician. Similarly, a study conducted by Alyasin and Douglas (2014) in a tertiary referral facility in Saudi Arabia, reported that older patients (greater than 60 years) were more likely to present to the facility. This was related to the belief that the emergency department provides better care and access to investigations in contrast to the PHC facility. Additionally, Alyasin and Douglas (2014) highlighted that it is most likely a reflection of the burden of protracted ailments among this age group which requires specialist care that is more readily available at a referral facility. Yaffee et al. (2012) also determined that in Ghana, patients who bypassed their local primary health facilities to a tertiary referral facility were more likely to be above 38 years of age.

The findings from the above highlighted studies were divided, some suggested younger age groups while others suggested the older age groups were more likely to self-refer. Notably, a diverse age range of participants were captured in the different studies described above and the manner participants were grouped according to their age range in the different studies may have directly or indirectly impacted on the findings. For example, while several studies used the 20-29 age range, others grouped the ages into 25-34 and 26-35 (Abdi et al., 2015; Kraaijvanger et al., 2015; de Valk et al., 2014; Aguwa et al., 2010; Rassin et al., 2006). In addition, the affinity for the service users to utilise the referral facilities may be linked with the perception of the nature of care they hope to receive at the referral facilities as

highlighted by Rassin et al. (2006), where older patients felt they had better social support offered to them at the referral facilities in Israel.

2.2.2 Marital status

Differences have been observed in the utilisation of healthcare services based on marital status (Joung et al., 1995). Using a multivariate logistic regression model, Tsai et al. (2010) learned that marital status was an independent factor associated with patients' self-referral for non-urgent visits to the emergency department of a referral facility in Taiwan. This study presented an odd ratio of 1.55 for unmarried patients to self-refer. Likewise, in the Netherlands, de Valk et al. (2014), noted that patients who were single with no children were more likely to self-refer themselves to the emergency department. It is worth noting, however, that the term *civil status* used in their study was defined into the following categories: single no children, partner with children, single with children, partner no children and others. This presents difficulties when comparing the research conducted by de Valk et al. (2014) to others.

Abdi et al. (2015) documented that out of 346 patients who self-referred to a secondary healthcare facility in Ethiopia, 82% of the participants were married. Alyasin and Douglas (2014) also observed that in the emergency department of a referral facility in Saudi Arabia, majority of the participants were married. These participants were more likely to present to the facility for non-urgent care, thus bypassing their PHC facilities. In Tanzania, Kahabuka et al. (2011) reported that 78% of caregivers who circumvented their PHC facilities to attend one of the two district referral facilities were married. A household study was conducted in the US by Liu et al. (2008) to acquire information from rural patients. These patients were bypassing their local facility in preference to attending a healthcare facility further afield.

With regards to demographics, majority of their participants were found to be married (65.6%). In addition, the married group were more likely than others to bypass their local healthcare facility. This was attributed to the likelihood of having a spouse to drive the ill partner to the distant medical facility.

Guo et al. (2002), attempted to describe the characteristics of self-referred patients presenting with an abnormal illness to the general medicine clinic of a referral hospital in Japan. Their findings disclosed that self-referred patients did not differ significantly from patients referred by a physician, in terms of marital status, age, occupation or educational level.

The differences observed from the various related studies may have resulted from the contrasting ways in which marital status was categorised. For example, Tsai et al. (2010) broadly used married and unmarried categories while the categories used by de Valk et al. (2014) included single no children, partner with children, single with children, partner no children and others. Moreover, the inclusion and exclusion criteria employed by the various studies may have also influenced the findings. For example, studies that had the inclusion criteria of 18 years and above may have captured a higher proportion of married participants due to the larger sample pool related to this group of participants. Also, depending on the cultural setting of the study, it may have been more common for most participants above 18 years of age to be married such as in Nigeria (Ekane, 2013), seeing as once again this would increase the sample pool of married versus single participants.

2.2.3 Occupation

Occupation or employment status has been noted to play a significant role regarding decisions to use healthcare facilities in different settings (Macassa et al., 2014). Gross et al. (2000) reported that participants employed three months prior to participating in their study had a more preference to self-refer to specialist care rather than consult their family physician. A study undertaken in Italy by Lega and Mengoni (2008) investigated the factors that lead to non-urgent patients self-referring to the accident and emergency department of a general hospital, rather than using the primary care services. They interviewed two groups of patients; those bypassing GP surgeries to present at the accident and emergency department and patients presenting at a GP surgery. Their results indicated that patients who presented to the accident and emergency department were more likely to have a low skilled job when compared to GP surgery patients.

Lee et al. (2000) in a study undertaken in Japan, applied multiple logistic regression to analyse which factors were independently associated with patients utilising the referral facility at an accident and emergency department instead of the GP practice. They established that more full-time workers utilise the accident and emergency unit than part-time workers. Visser et al. (2015) also found that patients in employment in South Africa were more likely to bypass their PHC facilities. Similarly, Tsai et al. (2010) noticed that patients who were government employees were more likely to present at the referral facility at an accident and emergency unit instead of presenting at their PHC facility. This was, however, linked to the difference in opening hours in relation to the two services. Accident and emergency departments are typically open twenty-four hours a day, whereas PHC facilities or GP practices generally have

more restricted opening hours. Therefore, the accident and emergency department were more convenient for full-time workers.

Some of the above findings were also likely context specific, for example Lega and Mengoni (2008) study in Italy indicated that participants with low skilled jobs were were more likely to present at the accident and emergency department. Notably, in Italy, there is a co-pay fee system, where all citizen pays when using such healthcare services. However, there are exemptions for particular group of people such as disabled, chronic disease patients and low-income individuals amongst others (Italian Ministry of Health, 2012). Therefore, participants with low skilled jobs might have been more likely to fall within the low-income group and consequently exploit the use of the referral facilities due to their exemption from paying.

2.2.4 Level of education

Education has been identified as a key influencing factor for both a population's health and their use of health services (Zimmerman, et al., 2015). Abdi et al. (2015) ascertained that most of the patients who self-referred to a secondary healthcare facility in Ethiopia were ninth to twelfth grade educated. They reported that this group of patients were 2.68 times more liable to avoid their local PHC facilities. Better educated patients were also found to be more likely to access care at tertiary referral facilities in Nigeria instead of PHC facilities (Aguwa et al., 2010). Similarly, in a household survey conducted in Sri Lanka, Akin and Hutchinson (1999) demonstrated that educated individuals are more likely to side step their closest facilities.

At least 75% of caregivers who self-referred their children were reported to have had a primary level of education in Tanzania (Kahabuka et al., 2011). Kahabuka et al. (2011) determined that caregivers with post-primary education were more significantly associated with self-referring their children to the outpatient department of a secondary referral facility. Lee et al. (2000) also reported that a higher proportion of more educated patients utilise accident and emergency referral facilities in Japan for general practice purposes. Likewise, in the Netherlands, Kulu-Glasgow et al. (1998) noted that patients with higher educational levels more commonly self-referred. This was linked to the fact that patients with higher educational levels may have a better understanding of their medical conditions and have a clearer idea of the facility or specialist to consult. In turn this results in these patients circumventing PHC facilities and going directly to a referral facility. Likewise, Visser et al. (2015) demonstrated that the educated subjects in their study were more likely to respond that the PHC staff members do not treat patients kindly when compared with the uneducated subjects, which inturn potentiate their decision to self-refer.

In Kuwait, Shah et al. (1996) established a significant positive association between levels of education and bypassing PHC facilities for non-urgent conditions. They stated that those with secondary or higher levels of education were more likely to bypass the PHC facilities. Moreover, patients with higher levels of education were seen as more connected with '*wasta'*. In essence, *wasta* is an individual who acts as an intermediary to facilitate access to an organisation or facility. Within the social context of Kuwait, *wasta* is an important tool for gaining access not only in the health sector, but also with respect to other sectors. Shah et al. (1996) further explained that the more educated individuals were more prone to have friends and social contacts that could assist their use of the referral facility. Likewise, in comparison

to the less educated population, more educated individuals were thought to promptly respond to illness as soon as any symptom was noticed, by seeking care.

In contrast to the above findings, Alyasin and Douglas (2014) discovered that in Saudi Arabia, participants with a lower educational status were more prone to present to a referral facility. In addition, Alyasin and Douglas (2014) examined the relationship between levels of education and perceived urgency of their medical conditions for attending the ED and found that those with less than high school education were more likely to perceived their condition as more urgent to warrant the use of the ED. In the Netherlands, de Valk et al. (2014) also discovered that patients with low or intermediate levels of education were significantly associated with self-referral to the emergency department without a referral from a general practitioner. In addition, their study noted that the more educated participants were more willing to make a copayment for a self-referral visit to the emergency department. In Italy, Lega and Mengoni (2008) reported that patients who sidestepped GP surgeries to referral facilities were more liable to have lower levels of education compared with patients who presented to GP surgeries.

Nevertheless, no association was established between educational levels and the bypassing of healthcare facilities to the accident and emergency unit of a referral facility in Ghana (Yaffee et al., 2012). Yaffee et al. (2012) did however highlight that despite only 29.8% of their study population holding secondary level education or higher, the distribution of health information resources in Ghana is extensive. Consequently, this may have increased public health awareness and thus, also reduced the effect of increased education.

The above studies have demonstrated the likely link of levels of education impacting on healthcare self-referral. However, findings cut across higher and lower levels of education predisposing service users to bypass their primary level of care. Its likely that individuals with higher levels of education are better able to understand the care available at different levels of care and use that understanding in choice making. While for individuals with low level of education, the lack of understanding of the appropriate facility to utilise is likely linked to the reason for the bypass of the PHC facilities. Thus, as indicated by Yaffee et al. (2012), general public health awareness may help decrease the effect of education on the facilities to utilise.

2.2.5 Sex/Gender

Gender differences have been reported to influence the utilisation of healthcare services. Studies have revealed that males are less likely to seek help and engage in the use of health services than females. It has been argued that this is due to the social construction of masculinity that presents the male as independent, self-reliant and the dominant gender (Smith et al., 2006; Mansfield et al., 2003; Courtenay, 2000; Tudiver and Talbot, 1999). Likewise, females were identified by some studies to be more liable to self-refer to a referral facility when compared to their male counterparts (Bianco et al., 2003; Akin and Hutchinson, 1999). Moreover, Alyasin and Douglas (2014) highlighted that in Saudi Arabia women were more apt to attend the referral facilities when compared with men. This was the case, even though in Saudi Arabia women travelling to a healthcare facility would generally need to depend on a *mahram* (male family member) to drive them. Relationship has been demonstrated between gender and the perception of the nurses at the PHC facilities being well trained to have influenced patients to seek care at the referral facility, Visser et al. (2015)

noted that the males were less likely to hold that perception when compared with the females.

In contrast to the above, Abdi et al. (2015) reported that females were less likely to self-refer in Ethiopia. They added that the difference may be attributed to the privileges accorded to males. Noting that within the Ethiopian community most household expenses (including healthcare costs and decision-making powers) are controlled by the male. As such, when a woman enters marriage, the husband will hold greater control of their own and their wife's personal decisions.

Descriptive statistics from other studies have reported a varying representation of gender in their studies. For example, 54.8% (n=312) of patients who self-referred to a minor injury unit in the UK were male (Dolan and Dale, 1997). In another study undertaken in the UK, which evaluated patient's use of the emergency department instead of the PHC facilities available, male and female participants were found to be evenly distributed (n=485) (Land and Meredith, 2013). Liu et al. (2008) reported that 71% (n=402) of those who circumvented primary care physicians in US were females. Moreover, in South Africa, most of the participants (68.6%; n=293) who bypassed their PHC facilities with minor ailments and made use of a referral hospital were females (Visser et al., 2015). In a semi-structured telephone interview conducted among 198 self-referred patients in the UK, Mcguigan and Watson (2010) found a trend, whereby they noted that men were influenced by the perceived suitability of their conditions while the women were influenced by the advice of others to self-refer.

The differences observed in the male and female populations of various studies in relation to healthcare self-referral may have been due to the methodology and also contextual factors surrounding the studies. Several studies were household studies, while others were conducted within healthcare facilities. Additionally, settings where the studies were performed may have also influenced the findings. For example, in Saudi Arabia where one of the studies (Alyasin and Douglas, 2014) was conducted, the issue of gender equality continues to be a challenging subject where a 'mahram' (male family member) needs to accompany a female member when going to the hospital. Thus, this may have extraneous effect on the level of utilisation of healthcare services by the different genders.

2.2.6 Healthcare insurance

Healthcare insurance has been noted to provide means for accessing healthcare services and thus is expected to influence utilisation (Andersen, 1995). Lack of money regularly deters people from using healthcare services. The poor in every country confront barriers to access care when they are required to pay directly for the costs of medical treatment, medicines and transportation (Kobusingye et al., 2005). Nordberg et al. (1996) also noted that a patient's inability to pay charges associated with presentation at a healthcare facility, frequently deterred patients from presenting at those facilities. Many low and middle-income countries rely heavily on an out-of-pocket healthcare payment. For most high-income countries, a form of co-insurance (a fraction of the cost of a health service that is paid by the insured) is usually taken, while in tax-funded healthcare systems, cost-sharing by means of co-payments is practised (Mathauer and Carrin, 2011).

In a study undertaken in the US, researchers observed a national trend in patients visiting a specialist for the first time, according to their insurance status. Specifically, it was observed that the rate of self-referred new specialist visits was one in five among patients with medicare insurance and one in four amongst patients with private insurance (Aliu et al., 2014). Hong et al. (2007) in their study to determine the role of socio-economic and race factors on the use of the emergency department for routine care in the US, reported that being uninsured and having an annual personal income of less than 20,000 US dollars predisposed patients to use the emergency department for non-urgent care. Likewise, Kangovi et al. (2013) in a qualitative study in the US, noted that a common shared perception among their participants was that they needed to be insured to be able to access the ambulatory care. Consequently, this left them with no choice but to seek hospital charity care when they became ill.

Yaffee et al. (2012) revealed that patients in Ghana who bypassed their local facility to a tertiary referral facility were less likely to be insured when compared to non-bypassers. They noted that bypassers may have slightly lower socio-economic status than non-by passers. They also pointed out that socio-economic status has been found to be positively correlated with insurance status in Ghana. Specifically, those belonging to the wealthier class have a higher enrolment in the Ghanaian health insurance scheme. Similarly, in the Netherlands, financial reasons were established to be a strong indicating factor when examining the reasons why patients circumvent their GP to attend an emergency department within their referral facility. This study demonstrated that patients with high socio-economic status were more likely to attend the emergency department. This was attributed to the fact that majority of this population had insurance which covered consultation at the emergency department

and moreover, they would receive no insurance re-imbursement for consultation with their GP (Rieffe et al., 1999).

In Israel, PHC is delivered by way of four non-profit insurers, or *sick funds*. One of the sick funds has a gate keeping policy, while the other three have a policy of self-referral to majority of specialists. In a telephone household study, Gross et al. (2000) examined the stated preference of adult members of these four sick funds, regarding their self-referral to a specialist. They learnt that a high percentage of members of the three sick funds with a self-referral policy preferred the option to self-refer; an even higher percentage in that group self-referred to the specialist.

Likewise, in Iran, Rasoulynejad (2007) observed that the rate of self-referred patients for those insured by a closed loop, semi-closed loop and open loop (free to contact any caregiver) differ considerably. The rate was exceptionally high for patients who were in the open loop insurance system (75.5%; n=361). The open loop was primarily covered by out of pocket payment, social security, therapeutic services insurance, and other cost-payment procedures. The package included in the open loop ensured that patients were able to contact any care giver of their choice, which was the likely determining factor for the high rate of self-referred individuals observed in that group. Patients who self-referred were, however, fewer in the closed loop (6.8%; n= 28) and semi-closed loop (29.7%; n= 43) types of insurance, compared to the open loop form of insurance (Rasoulynejad, 2007). Similarly, in the US, Ragin et al. (2005) determined that despite 81.3% of their participants having one form of insurance

(commercial, medicare, medicaid and other forms of insurance), the limitations related to the different forms of insurance also proved to influence their use of the emergency department.

Healthcare insurance may enable easier access to healthcare and likely serve as a barrier for those who are unable to afford it. Evidently, healthcare systems differ all over the world. In settings with well-established healthcare insurance schemes, difficulties still exist in relation to the low socio-economic class accessing healthcare, as they are unable to afford it (Swartz, 2009). In addition, from the findings in the literatures, the type of insurance one possesses also appears to influence patients' decisions regarding where to seek healthcare. However, in Nigeria, healthcare insurance is not a common phenomenon. Despite the government initiated National Health Insurance Scheme (NHIS) which came into operation in 2005, it has only approximately 3% coverage of the entire population of Nigeria. Therefore, healthcare financing in Nigeria is still principally through out of pocket payment by the patients (Dutta and Hongoro, 2013).

2.2.7 Knowledge of the role of PHC and referral facilities

Knowledge or beliefs held by service users towards healthcare services have also been established to influence healthcare utilisation (Andersen, 1995). In a qualitative interview carried out among 100 females in Qatar, Read et al. (2014), found that lack of knowledge of alternative options regarding the emergency department made patients present to referral facilities with non-urgent medical conditions. Similarly, in an Iranian study, poor information concerning the healthcare referral system was also a common finding among the participants (Rasoulynejad, 2007). In Ethiopia, Abdi et al. (2015) noticed that 65% (n=274) of the

participants in their study lacked the knowledge that the PHC facility was supposed to be the first point of contact, prior to presentation at the secondary referral facility. In addition, their study revealed that patients, who knew that the healthcare facility that was closer was the first point of presentation, were less likely to self-refer themselves to the secondary health facility. Similarly, those who obtained information on the referral system from any healthcare worker at the healthcare facility which was closer, were 3.5 times less liable to self-refer themselves. In the UK, Rajpar et al. (2000) found that out of 54 patients who attended the accident and emergency department for primary care problems, 51 were not aware of the GP cooperative that was available at the same site. However, 45 of the participants affirmed they would use the GP cooperative in the future having learnt about it.

Moreover, Land and Meredith (2013) noted that UK service users had little idea of other resources available to them for non-emergency concerns, other than presenting at the emergency department for treatment. They noticed that although several service users had heard about walk-in and Urgent Care Centres (UCC), most people did not consider using a walk-in centre. A similar study was conducted at a tertiary referral facility emergency department in the US (Northington et al., 2004). Here, they discovered that 65.6% (n=279) of the participants were not aware of other care sources other than the emergency department from which they could seek appropriate care for their complaint. Participants were recruited between 9:00 am and 1:00 am each day. It was hypothesised that there would be less influx of patients to the emergency department during the normal primary care physician opening hours (9:00 am to 5:00 pm). However, there was no significant difference observed among patients presenting to the emergency department between the primary care physician opening hours and those presenting from 5:00 pm to 1:00 am.

In line with the above, it may be assumed that being informed about the healthcare system could result in less inappropriate emergency department presentations. However, a qualitative study conducted in France established that this was not the case. Durrand et al. (2012) revealed that despite being informed about the healthcare system, the service users interviewed chose to present to an emergency department, as opposed to a PHC facility. This was ascribed to patients interpreting their knowledge of the different facilities to their right to choose. However, the healthcare providers' participating in the study highlighted the negative effects the action of the service users can have by displaying a preference for presenting at the emergency department. Specifically, this included a reduction in the quality of care that they could offer due to prolonged waiting times and delayed diagnoses. Further negative effects included delayed treatments for patients and delayed care for seriously ill patients. It is worth noting that the knowledge exhibited by the service users may be because of the sampling method employed by the researchers, as well as the relatively small qualitative sample size (n= 87) of service users which would limit generalisation. The sampling of participants was based on purposive sampling which may have resulted in the selection of participants with the desired knowledge for the research.

2.2.8 Expectations and attitudes

The healthcare system is increasingly witnessing a shift from the traditional doctor-patient relationship model to a more consumerist model, where healthcare is viewed as a product supplied by the healthcare provider which is in turn consumed by the patients. Therefore, market place ethics is being inculcated into healthcare delivery which allows patients several opportunities. Specifically, expectations are established with regards to the services expected

from a facility, along with the notion related to the choice of a facility to seek care from (Rowe and Moodley, 2013).

Forrest et al. (2001) in a study among patients with a *point of service health plan,*[1]observed that patients experienced relationship problems with their primary care physician. This was commonly as a result of the physician refusing to make a requested referral for a patient, thus necessitating the patient to self-refer to their desired facility. In South Africa, it was reported that staff members in PHC facilities do not treat patients 'kindly'. This was a significant finding among the educated patients, as compared to the uneducated patients (Visser et al., 2015).

Self-referral to a referral facility was also significantly correlated with patients who were least satisfied with the attitudes of their primary doctors and nurses, in contrast to patients referred by their primary physician in Japan (Guo et al., 2002). Indeed, a recurring theme noted across the literature is that a greater sense of trust in the referral facilities, coupled with a lack of confidence in the GP of PHC facilities was one of the primary reasons for a patient's self-referral (Kraaijvanger et al., 2015; Kangovi et al., 2013; Porro et al., 2013; Sempere-Selva et al., 2001; Shah et al., 1996). Abdi et al. (2015) perceived an overwhelming lack of confidence in PHC facilities among their participants. This was principally associated with the likelihood of not getting the right person to take care of their problem. They also highlighted that reduced patient confidence in a facility was associated with the patient feeling they had not been prescribed the medicines they require. The issue of lack of

[1] This is a form of health insurance applied in the US based on lower medical costs in exchange for more limited choice.

confidence in the primary level of care was also reflected by Rassin et al. (2006). They reported that 62.8% of the participants in their study had decided to present to the emergency department of a referral facility. This was ascribed to the patients feeling more confident in the quality of care in an emergency department over that of a local community clinic.

Stewart et al. (1989) in a quantitative study among parents presenting to the emergency unit of a children's hospital remarked that 20.9% of the parents self-referred their children because they thought the child would be referred to the hospital anyway by the family doctor; hence, they took the initiative. Moreover, Beache and Guell (2016) conducted a qualitative study of twelve patients presenting to the accident and emergency department of a referral facility at Saint Vincent and the Grenadines (SVG). Their research highlighted that a patient's previous positive experiences at the accident and emergency department influenced their decision to attend the referral facility.

Land and Meredith (2013) reported that participants in the UK justified the reason for bypassing their primary level facilities, due to a belief that their GP would have sent them to the referral facility anyway. As such, they felt there was no need to present first to their GP, as going directly to the emergency department would mean they would be attended to more quickly. Specific studies have highlighted a similar rational relating to patients being time conscious. For example, again in the UK, Singh (1988) stated that several participants felt that it would be quicker to go directly to casualty than to their GP as a first port of call. In turn, this was seen to have influence on the use of the casualty department. Likewise, in Iran, the US

and the Netherlands, patients self-referring to a referral facility perceived visiting their GP to be a waste of time (Rasoulynejad, 2007; Forrest et al., 2001; Kulu-Glasgow et al., 1998).

Additional studies have examined the expectations of participants who circumvented their primary healthcare provider to present at a referral facility for non-urgent medical conditions. Findings demonstrated that these participants appeared to be seeking reassurance that their problems were not life threatening, therefore reducing their health-related anxiety (Durand et al., 2012; Land and Meredith, 2013; Coleman et al., 2001; Kulu-Glasgow et al., 1998).

From the literatures, it is evident that service users have some level of expectations from the facilities they receive healthcare from and when it is not met they tend to seek care elsewhere. Notably, their decisions have been in favour of presentation at the higher levels of care. This may be linked with the ability of being able to get all the needed package of care at a single place which the referral facilities provide.

2.2.9 Access to healthcare

Access to healthcare facilities continues to be one of the principal factors that affect healthcare utilisation. This can take the form of distance to a facility, availability of the facilities, opening hours and waiting time (Andersen, 1995). A number of these factors were highlighted in the identified studies pertaining to healthcare self-referral.

Distance: Patients were reported to travel varying distances to access referral facilities both in developed and developing countries. This is more so a concern for developing countries

where distance is also compounded by poor roads and limited resources (Ellis, 1997). However, studies presented mixed findings because proximity to the referral facility was found in some studies to influence patients' decisions to present to the referral facility, whilst for others, despite the need to travel long distances, this was not perceived as a barrier to self-refer to the referral facility.

In Ghana, Yaffee et al. (2012) mentioned that most of their participants (87.2%) who self-referred had to travel more than thirty minutes to reach the referral facility. Kahabuka et al. (2011) also noted that 52.4% of caretakers in Tanzania who reported travelling for two or more hours to reach the referral facility, had bypassed their nearest PHC facilities. This implied that patients were ready to travel lengthy distances to reach facilities they perceived to provide better quality services. In an alternative study, patients who circumvented their closest primary facility, travelled an additional twenty-seven miles to access the referral facility (Radcliffe et al., 2003). Lega and Mengoni (2008) also remarked that patients who self-referred to a referral facility in Italy were more likely to be patients who were farther away from the hospital.

In contrast to the above, Bianco et al. (2003), documented that 49.7% (n=269) of the patients who self-referred to a hospital in Italy, they covered less than five kilometres from their home to the hospital. This is compared to 21.3% (n=115) of the patients who came from a distance greater than thirty-five kilometres. Moreover, de Valk et al. (2014) examined the impact of location on attendance at referral facilities in the Netherlands. They observed that having no GP or GP co-operative close to the patient acted as motivation to self-refer to a referral facility. This was also the case if patients were unaware of the location of their PHC facilities.

In addition, they highlighted that some patients' felt that the referral facility was more proximal to them which influenced their decision to seek care at the facility. In a minor injury unit in the UK, 86% (n=268) of the participants took less than ten minutes to arrive at the facility either by car, taxi, walking, bus or other means of transportation (Dolan and Dale, 1997).

Lee et al. (2000) found that in Japan, living in close proximity to hospitals was significantly associated with bypassing primary care to attend a referral facility. They mentioned that patients who lived within a five-kilometre radius of the referral facility avoided their PHC facilities to use accident and emergency services for general practice purposes. In contrast, patients living more than six kilometres from the referral facility tended to use the facility more for emergency purposes. Similarly, proximity of the referral facility to the patient was identified as a recurring reason in other literature for presenting at referral facilities and not to PHC facilities (Visser et al., 2015; Land and Meredith, 2013; Tsai et al., 2010; Rassin et al., 2006; Low et al., 2001; Sempere-Selva et al., 2001; Thomson et al., 1995). In the US, PHC facilities were described as less accessible due to transportation difficulties in comparison to hospital care. It was observed that patients had greater preference for hospital care because it was more straightforward to get an ambulance to the hospital for potentially urgent complaints. Furthermore, hospital care also offered a *one-stop-shop* service. This service appealed to patients as they were able to have all their needs met in a single facility (Kangovi et al., 2013; Koziol-Mclain et al., 2001).

Opening hours: One of the concerns identified by Beache and Guell (2016) in Saint Vincent and the Grenadines (SVG) within their study, was the limited scheduling of doctor-run clinics and the limited hours district clinics operated. Participants stated that this limited availability influenced their decision to self-refer. Most patients in the study conducted by Lee et al. (2000) in Japan, bypassed PHC facilities at different times of the day. However, one of the reasons identified for self-referral related to the closure of PHC facilities was due to public holiday or being out of hours. Similarly, in Spain GP services are closed 'out of hours' (including weekends), which encourages patients to present at referral facilities (Sempere-Selva et al., 2001).

In the US, the out of hours care offered by referral facilities is also viewed as an enticing attribute with regards to referral facilities, especially for people who work during regular office hours (Kangovi et al., 2013). Several studies have highlighted the fact that referral facilities are always open for twenty-four hours with no need to book an appointment. This comparison with PHC facilities is viewed as an important motive for patients to self-refer (Linden et al., 2014; Maharaj et al., 2013; Masso et al., 2007; Afilalo et al., 2004; Coleman et al., 2001; Low et al., 2001; Rieffe et al., 1999). Thus, in Italy, Bruni et al. (2016) examined whether extending the opening hours of GP practices by up to 12 hours/day reduces the inappropriate utilisation of emergency services. They determined that increasing primary care accessibility results in a reduction of the inappropriate use of emergency departments by 10-15%. However, even though the local clinic in South Africa was open every day of the week, 75.4% (n=221) of the participants in a study performed by Visser et al. (2015) still preferred

to circumvent their local clinic facilities to attend the referral facility. Therefore, this factor may need a contextual approach.

Waiting time: Waiting time was a recurring reason to self-refer among the participants in a French qualitative study carried out by Durand et al. (2012). One of the consistent motivations identified by patients with respect to bypassing their primary care provider was due to the delay in obtaining an appointment with their primary care provider. This perception was also consistent with the views of the healthcare providers included in the study. Guo et al. (2002) also established that participants who self-referred to their general medicine clinic in Japan were less satisfied with the time they had to wait to gain an appointment with their primary care provider. Similarly, the waiting time to obtain ambulatory care in the US has been described as *tedious* (Kangovi et al., 2013).

Howard et al. (2005) in a qualitative study performed in the US also noted that one of the outstanding issues highlighted by their participants related to bypassing their primary care provider to seek care at the referral facility was due to the inability of the participants to get an appointment with their primary care provider. The participants further highlighted that this was not the case for the emergency department, where it took less time for them to be reviewed in comparison to a PHC facility. Therefore, the referral facilities had assumed a position perceived by service users as rendering *faster help* when compared to PHC facilities (Kraaijvanger et al., 2015; Porro et al., 2013; Lega and Mengoni, 2008; Thomson et al., 1995).

Waiting time to see a healthcare provider within a referral facility has been correlated with the trust a patient places in that facility. To provide an example, in the UK, Land and Meredith (2013), found that patients would frequently be aware of the fact they would need to wait for a long time at an emergency unit. Despite this, they were still willing to wait if they could not obtain a GP appointment on the same day. This was ascribed to the fact that the participants had used the referral facility before and had developed trust in the facility. Equally, Charante et al. (2008) in a study conducted in the Netherlands, ascertained that the waiting time expected by their respondents in a referral facility was higher compared to what was expected at a GP centre. Nonetheless, the respondents still preferred to self-refer to a referral facility.

In an attempt to reduce waiting time and also limit inappropriate attendance at emergency departments, Jones (2011) conducted a qualitative study among healthcare providers regarding a piloted scheme, in which GPs worked alongside emergency staff by attending to minor cases. They found that the GPs allowed emergency staff more time to care for acutely ill patients; thus, reducing waiting times and the rate of inappropriate attendance. However, it was also highlighted that the scheme was likely to give patients the impression that they can use an emergency department for GP problems, therefore abusing the concept. In Turkey, there was general agreement among 93.5% of the 124 healthcare providers who participated in a study by Simsek and Gursoy (2016) that the inappropriate use of referral facilities in Turkey were linked to delays in getting tests and medical imaging completed at available policlinics.

As noted from the above findings, access to healthcare can take different forms and may be context specific. For example, distance to a healthcare facility may be complicated by bad roads in developing settings which further increase the travel time and also individuals mostly have to source for the resources to transport themselves. While for developed settings, readily available ambulance and different channels of sourcing for help are obtainable. For instance, in the UK, aside from the GP practice, other services such as the walk-in centre, NHS direct and urgent care centres are also available for primary care services (Jones, 2011). However, irrespective of the setting, bypass of the PHC facilities are still noted. The waiting time to get an appointment with one's primary healthcare provider in mainly developed settings has been highlighted in the literatures as a reason to bypass the PHC facilities, this contrast with that of a setting like Nigeria where primary healthcare services is a walk-in basis and no need to book an appointment. Therefore, some of the highlighted factors regarding accessing healthcare facilities need a contextual approach to understand and address them.

2.2.10 Role of healthcare providers

Healthcare providers play a pivotal role in influencing patients' decisions to use healthcare services. This was apparent from the different dimensions presented by the studies on healthcare self-referral. Among additional factors that proved significant for patients in the Netherlands, Denmark and the US, was the fact that some patients had no GP or the GP could not see them at the time they wanted (Kraaijvanger et al., 2015; Linden et al., 2014; Norredam et al., 2007; Forrest et al., 2001; Kulu-Glasgow et al., 1998). Similarly, in a study undertaken in the UK most patients claimed their GP were not available to see them; hence, the reason for presenting at the emergency department of a referral facility (Land and Meredith, 2013;

Ward et al., 1996). This was also consistent with the finding of Alyasin and Douglas (2014) in Saudi Arabia. They found that 86.9% (n = 304) of participants in their study had no regular primary care provider and thus, were also more likely to present at a referral facility. In Kuwait, the lack of patients being registered with a primary healthcare centre was significantly associated with bypassing PHC facilities to present at an accident and emergency department with a non-urgent medical condition (Shah et al., 1996).

In addition to the above, patients had a positive impression of specialists compared to their GP. Having more confidence in specialist care was associated with patients' decisions to seek care directly with the specialist rather than passing through their GP in the Netherlands (Kulu-Glasgow et al., 1998). In another study carried out in the Netherlands, 66% (n=147) of the self-referred participants were sure that the GP would not be able to manage their medical condition and therefore, identified the accident and emergency doctor or specialist as the best qualified healthcare provider to seek care from (Charante et al., 2008). Furthermore, patients' lack of satisfaction with their primary care doctors in terms of their explanation, technical comprehension of the medical condition and their competency, was found to be associated with self-referral in Japan (Guo et al., 2002).

The comparison of the competency of the healthcare providers in PHC facilities to that of the referral facilities was a recurring reason identified by different literatures for patients circumventing their primary level of care to the referral facility, with most favouring the referral facilities (Abdi et al., 2015; Porro et al., 2013; Rasoulynejad, 2007; Rieffe et al., 1999). Nevertheless, Visser et al. (2015) attempted to examine the relationship between the

participants knowledge of having a visiting doctor at their PHC facilities and the perceptions for the preference to be seen by a doctor at the referral facility as a contributory factor for self-referral but found no association. Lega and Mengoni (2008) noted that the ease of obtaining specialist consultation in Italy related to influencing a patient's decision to seek care at a referral facility rather than at a primary care level.

Generally, the literatures highlighted service users' preference for the healthcare providers in the referral level as compared to those in the PHC facilities. The understanding by patients that they are likely to meet more specialised healthcare providers at a higher level of care is likely a contributory feature. This may also be peculiar for developing settings where there is wide spread of different cadre of healthcare providers within the PHC facilities because of limited doctors. For example, in Nigeria, PHC services are mainly provided by nurses, midwives and community healthcare providers (Abdulraheem et al., 2012). Likewise, in Tanzania, the assistant medical officers, clinical officers, nurses/midewives and medical assistants are the main care providers within the PHC facilities (Munga and Maestad, 2009). Therefore, this may necessitate patients searching for where they are able to get care from doctors and consequently presenting at the referral facilities.

2.2.11 Availability of healthcare facilities/ equipment

The perception that better facilities are readily available at referral facilities appears to influence patients' judgement of quality of care (de Valk et al., 2014; Maharaj et al., 2013; Sharaf and Barakat, 2013; Siminski et al., 2008; Northington et al., 2004; Low et al., 2001; Rieffe et al., 1999). The likelihood of being able to access investigations such as blood tests and x-rays at referral facilities, and the inability to receive the same services at PHC facilities,

were several of the reasons provided by most participants for bypassing their PHC facilities to a higher level (Unwin et al., 2016; Alyasin and Douglas, 2014; Linden et al., 2014; Charante et al., 2008; Kulu-Glasgow et al., 1998; Singh, 1988). In addition to the lack of diagnostic facilities, an additional factor highlighted by the care givers of children under-five was the lack of medications available at PHC facilities (Kahabuka et al., 2011). This was also a consistent finding among other studies which identified the lack of stock of medication at the primary level of care, as the reason for bypassing said facilities (Harry-Young et al., 2015; Visser et al., 2015). Nevertheless, a secondary data analysis of a paediatric emergency department conducted in Australia by Parry et al. (2016) found that children with limited access to primary care facilities were up to six times more likely to use emergency departments for non-urgent care. Their research however noted that limited access to primary care facilities was common in areas of deprivation.

In a qualitative study carried out by Beache and Guell (2016) in Saint Vincent and the Grenadines (SVG), it was observed that it was not only the absence of attending doctors but also the absence of diagnostic facilities that further necessitated patients to seek care at a referral facility. There was also an association between patients who were dissatisfied with their primary care environment and equipment, and the likelihood to self-refer (Guo et al., 2002). Bianco et al. (2003) established that patients who self-referred with non-urgent medical conditions had a significantly lower need for investigations to be performed.

It should be mentioned that perceptions amongst healthcare providers from three regional hospitals in the Republic of Ireland were observed to be divided. The opinion of majority of

the participants was that most patients presenting to the accident and emergency departments instead of their GP did not actually require diagnostic tests, such as blood tests or x-ray's (Breen and McCann, 2013). However, this difference in opinion may have reflected on the different groups of healthcare providers (nurses, doctors and paramedics) included in the study. This may have influenced the diverse views regarding the choice of management of the medical conditions, based on their expertise. Nevertheless, in the Netherlands the ease of gaining radiological and laboratory investigation at a referral facility was noted to be significantly associated with self-referral (Kraaijvanger et al., 2015). Equally, the prospect of being able to have a specialist consultation and undertake investigations at just one facility persuaded most patients to seek care at a referral facility (Porro et al., 2013; Durand et al., 2012; Lega and Mengoni, 2008; Masso et al., 2007).

Indications from the literatures have demonstrated patients' affinity for healthcare facilities where they perceive there are needed equipment/ facilities for providing healthcare. Notably, the healthcare delivery system is structured in a pyramidal shape as earlier depicted in figure 1 (section 1.3), whereby the higher the position of a facility on the pyramid the more sophisticated the facilities. Thus, the PHC facilities at the base of this pyramid are the least equipped. For this reason, it may be perceived that service users are likely to judge the PHC facilities as less equipped and choose to use the referral facilities. However, the pyramidal structure of the healthcare delivery system is designed for the PHC facilities to be able to manage the common medical conditions and when unable to do so, they can appropriately refer to the higher level (Lenel et al., 2005).

2.2.12 Advice from friends, relatives and others

Across the literature, a recurring factor identified as one of the primary influencers of patients' decision to sidestep their PHC facilities was advice from family members, relatives or friends (de Valk et al., 2014; Yaffee et al., 2012; Charante et al., 2008; Sempere-Selva et al., 2001; Rieffe et al., 1999; Singh, 1988). For example, in Saudi Arabia, Alyasin and Douglas (2014) remarked that the decision to seek care at a referral facility was influenced by advice from family members. They did however suggest that this action reflects the cultural orientation of the Saudi populace. Specifically, most extended families live together and share decision-making about where to seek care for their medical conditions. Beache and Guell (2016) observed that advice on where to seek care was not only influenced by family members, but the decision-making process was also shared by friends. Similarly, Koziol-Mclain et al. (2001) commented that in the US, friends and relatives were also contacted for advice and support on which healthcare facility to use to address health problems.

In Israel and the Netherlands, recommendations proffered by patients' relatives to seek care at a referral facility emergency department had a significant effect on the likelihood of a patient bypassing their PHC facilities to self-refer (Rassin et al., 2006; Linden et al., 2014). In addition, having acquaintances among people working in the health sector, such as doctors, nurses or pharmacists was noted to also impact on decision-making related to where to seek care (Porro et al., 2013; Rasoulynejad, 2007; Howard et al., 2005; Kulu-Glasgow et al., 1998). In research conducted by Read et al. (2014) they added that the patient's employer was also responsible for directing patients to present at a referral facility. Though, most of the patients that were directed to a referral facility for free services were expatriates because they did not

have the health card required to access the primary level of care. Nevertheless, in Ethiopia, majority of patients (72.3%, n=305) stated that they would not recommend care at a lower PHC facility to someone else (Abdi et al., 2015).

Notably, the literatures revealed that service users tend to initially discuss their medical concerns among relatives, friends and others such as employers and acquaintances which may result in proffering different advices on where to seek care. However, the context of the studies is also taken into consideration as shown by Read et al. (2014) where employers were responsible for directing their employees (mainly expatriates) on where to seek care due to lack of health cards.

2.2.13 Policies to regulate healthcare self-referral

Different settings adopt different measures to strengthen and regulate their healthcare system, which can impact on how service users make use of the services. Therefore, government policies and the values of a country can have a direct effect on healthcare utilisation (Morreale, 1998).

It was observed by de Valk et al. (2014) that a visit to a referral facility emergency department in the Netherlands was up to three times more expensive for the healthcare system than a visit to a GP cooperative. Furthermore, it was also five times more expensive than a visit to the patients' own GP. As such, they believed that significant savings could be made by cutting down the rates of self-referred patients to referral facilities. One of the proposed solutions to this problem was the introduction of co-payments for self-referred patients to referral

facilities. The willingness to make this payment to self-refer was noted to be more receptive among the more educated patients than patients with low level of education. Nevertheless, the open-door policy of emergency departments in the Netherlands has been identified as an important motive for patients to self-refer and could be a similar experience for other settings (Rieffe et al., 1999). Various authors have suggested the imposition of a monetary fine on patients who self-refer with non-urgent medical conditions. The rationale for this is to control the rates of patients bypassing their PHC facilities (Durand et al., 2012). Contrary to the above suggestion, Breen and McCann (2013) noted that increasing the cost of care for those who self-refer may not necessarily decrease presentation to a referral facility. In contrast, they proposed that a contextual approach is needed in addressing the problem of healthcare self-referral.

The policies enacted by each government plays a role on how individuals are likely to utilise the healthcare system. However, this needs to be contextualised as suggested by Breen and McCann (2013) because placing specific charges on patients who self-refer as indicated by some literatures may impact on the health outcome of those unable to afford those charges. For example, in low resource settings where patients already struggle to pay for healthcare through out of pocket, instituting extra cost may discourage patients from utilising the formal healthcare facilities and likely result in traditional form of medical care.

2.2.14 Symptoms/diagnosis

Various forms of symptoms and diagnosis are reported in the literature to have prompted patients to seek care at referral facilities. For example, obstetrics and gynaecological cases

were the common presentation noted in a study carried out by Aliu et al. (2014) on patients who self-referred to specialist care in the US. Notably, their study was centred on specific patients with healthcare insurance (medicare and private insurance), which may have influenced the medical conditions they presented to the referral facility with. Nonetheless, an alternative study in the US conducted by Forrest et al. (2001) among patients on a Point of Service (POS) insurance plan, identified orthopaedic and dermatological conditions as the two most common types of medical conditions prompting self-referral to specialist care.

Problems associated with musculoskeletal origin were the most common condition observed by de Valk et al. (2014) in their study in the Netherlands. Similarly, other studies also demonstrated that self-referring patients were most commonly diagnosed with conditions of a musculoskeletal origin (Unwin et al., 2016; Kraaijvanger et al., 2015; Kangovi et al., 2013; Durand et al., 2012; Charante et al., 2008; Rassin et al., 2006; Northington et al., 2004). Similarly, Dolan and Dale (1997) reported that majority of the presentations identified in their study were musculoskeletal related (sprains, strains, dislocations and fractures). Their study was performed in a minor injury unit in the UK which deals primarily with injury related concerns, which may have influenced the finding.

Other complaints and diagnoses were also identified as common conditions among self-referred patients. For example, Alyasin and Douglas (2014) identified abdominal pain as a common complaint. Pregnancy related conditions were the major medical issues identified by Visser et al. (2015) in a South African study. Additionally, Kulu-Glasgow et al. (1998) reported that ophthalmology cases were the most commonly self-referred medical condition

identified in their study in the Netherlands. However, the researchers suggested that this is probably because patients with ophthalmological conditions do not initially need to acquire a referral letter from their GP to be refunded for the costs of visits to a specialist, as compared to patients visiting other specialists.

Diverse symptoms and diagnoses from the literatures are reported to have influenced service users bypassing their primary level of care. However, some of the findings may have been related to the facilities where the studies were carried out, such as minor injury unit by Dolan and Dale (1997) which reflected musculoskeletal problems as the most self-referred cases. Other factors such as the medical conditions covered by the particular type of healthcare insurance individual held might have also been a contributory factor.

2.2.15 Duration of symptoms

A study by conducted Alyasin and Douglas (2014) in a Saudi Arabian referral facility noted that approximately two-thirds (n= 224) of their sample population presented to the emergency department within twenty-four hours of the onset of their illness. The remaining one third took almost a week or more from the onset of their symptoms to present at a referral facility. However, the medical conditions of the patients varied significantly, ranging from acute pain, fever, coughs and gynaecological problems, to bowel symptoms, urinary symptoms and wounds. This may have impacted differently on the patients, which in turn may have resulted in the different durations of presentation to the referral facility from the onset of symptoms. Bianco et al. (2003) also found that the patients most likely to self-refer were those whose symptoms had lasted between one and twenty-four hours, as opposed to any lengthier

durations. This finding was similar to studies conducted by Porro et al. (2013) and Rassin et al. (2006) in Italy and Israel respectively.

In some qualitative studies, majority of the participants indicated that their symptoms had been present for less than twenty-four hours prior to presentation at the referral facility. Studies that highlight this trend included the French study by Durand et al. (2012) and Beache and Guell's (2016) study conducted in SVG. Similarly, Dolan and Dale (1997) reported that most (75%, n=234) of the cases that presented at their facility (minor injury unit) were twenty-four hours or less in duration from the onset of the symptom. This may be expected as most injured patients may present as acute cases. Nevertheless, on analysing the probability of caregivers self-referring their children, it was ascertained that symptoms could be present for one to four days before they bypass their PHC facility (Kahabuka et al., 2011). However, the discrepancies observed in the duration from the onset of symptoms to presentation at the referral facility may be as a result of a mix of factors among the different studies, for instance the different symptoms or diagnosis experienced, the type or group of study participants and travel time to the referral facility.

2.2.16 Perception of severity of medical condition

Akin and Hutchinson (1999) reported that in Sri Lanka, patients' perception of being severely ill influenced their decision to bypass their minor public clinics, to seek care at the Base Hospital (referral facility). They noted that having PHC facilities proximal to patients was unlikely to affect this pattern of patient behaviour. Moreover, patients bypassing their primary care providers in Canada felt they were too sick and needed to be reviewed at the

emergency department of a referral facility (Boushy and Dubinsky, 1999). In a further study carried out in the Republic of Ireland, the most significant reason identified by healthcare providers on why patients self-refer, was the notion that patients believed that their conditions were serious and needed urgent care (Breen and McCann, 2013).

The perceived emergency status of a condition also influenced patients in Japan to bypass their GP services and attend an accident and emergency referral facility (Lee et al., 2000). Similarly, Kulu-Glasgow et al. (1998) analysed a mailed questionnaire which had been distributed to a specific group of privately insured patients. They established that participants who considered their medical complaints to be 'urgent' were more likely to self-refer for specialist care. The perception of having a severe medical condition that requires urgent attention was also a recurring reason identified by participants of other studies necessitating the bypass of PHC facilities (Kraaijvanger et al., 2015; Lega and Mengoni, 2008; Masso et al., 2007; Northington et al., 2004; Koziol-Mclain, 2001). In addition to patients evaluating their medical condition as severe or in need of urgent attention, Rassin et al. (2006) also discovered that increasing age was correlated with the likelihood of patients evaluating their medical condition as urgent. This finding was more pronounced from the age of 60 and above in their study.

In contrast, research by Kahabuka et al. (2011) among caregivers of children under-five in Tanzania, found that majority of the caregivers in their study had avoided their closest PHC facilities to present at the district referral hospital for non-severe symptoms. Furthermore, this action was also established to be significantly associated with self-referral. However, the judgement of severity may be subjective, because the caregivers were dealing with children

who could not decide for themselves. It is possible that the caregivers' perception of the symptoms of the children might have been under estimated or exaggerated and thus, they felt the need to seek care at the referral level.

Though Shah et al's. (1996) study was conducted among different age groups of patients bypassing their PHC facilities in Kuwait, they also learnt that patients who viewed their condition as non-urgent were more likely to present at an accident and emergency department for non-urgent medical conditions. This was consistent with findings reported by Linden et al. (2014), Maharaj et al. (2013) and Yaffee et al. (2012). Furthermore, Alyasin and Douglas (2014) examine the relationships between perceived urgency of care at the referral facility and age, gender, marital status, place of residence or employment status but found no significant relationship with the variables.

It is worth noting that the findings reported in relation to patients bypassing their PHC facilities may have been influenced by the sample focus in the study. For example, some studies looked at caregivers, others concentrated on patients presenting to referral facilities, whilst others examined patients covered by a particular form of insurance. The settings of the different studies or the methodology adopted for the different studies (some were household studies while others were carried out at healthcare facilities) could have also been a contributory factor to the findings.

2.3 Summary

Studies examining the predictors of healthcare self-referral have highlighted numerous factors that are expected to influence service users bypassing primary level facilities to

referral facilities. However, most of these studies were context specific and healthcare delivery in most contexts differs considerably (Kraaijvanger et al., 2016; Kangovi et al., 2013; Porro et al., 2013; Charante et al., 2008; Northington et al., 2004). It is therefore difficult to apply the findings from the related studies beyond the original settings of the research. Equally, in specific cases there has been disagreement on the findings of particular factors. For example, higher level of education was found to be a predictive factor to self-refer in a study conducted in Sri Lanka (Akin and Hutchinson, 1999) while de Valk et al. (2014) ascertained that patients with low or intermediate levels of education were significantly associated with self-referral in Netherlands. In addition, no association was established between educational levels and healthcare self-referral in Ghana (Yaffee et al., 2012).

Despite the evidence of the numerous factors identified to influence healthcare self-referral, there is dearth of studies in understanding the specific factors that are related to bypassing the PHC facilities to the referral facilities as applicable to the Nigerian context; thus, the need for the exploration of this concept. It is also evident that most studies have concentrated on service users with little attention given to the healthcare providers (Kraaijvanger et al., 2016; Beache and Guell, 2016; Aliu et al., 2014; Alyasin and Douglas, 2014; de Valk et al., 2014; Bianco et al., 2003; Koziol-Mclain et al., 2001). Furthermore, despite the literatures have highlighted numerous factors that are liable to predict healthcare self-referral, the relationships between the different factors that predict healthcare self-referral has not been extensively examined. Therefore, this study extends the literature beyond the description of the direct relationship between the individual factors and self-referral, to a description of the connections between the individual factors.

This chapter has detailed the factors linked with healthcare self-referral. The subsequent chapter therefore discusses the theoretical framework considered and adopted for this study.

3.0 Chapter Three: Theoretical Framework

3.1 Introduction

This chapter presents the theoretical framework for this study. It begins by discussing some of the common health seeking behavioural models, such as the Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), Health Belief Model (HBM) and Andersen's model of healthcare utilisation. These models were evaluated to determine the ideal model for understanding, structuring and aiding the analyses of the factors that influence healthcare self-referral in relation to this study. Furthermore, the rationale for the model adopted for this study is also provided.

3.2 Health seeking behaviour models

The concept of *health seeking behaviour* has gained attention as an essential vehicle for exploring and understanding patient actions across a variety of health conditions (Cornally and McCarthy, 2011). A few of the most utilised models of this concept in public health are the 'Health Belief Model' (from social psychology), 'Theory of Reasoned Action' (TRA) and its later development to the 'Theory of Planned Behaviour' (TPB) (Ajzen and Fishbein, 1988; Janz and Becker, 1984). Another theory recognised in the field of medical sociology is the 'Healthcare Utilisation' or 'Socio-Behavioural' model by Andersen (Hausmann-Muela, Ribera and Nyamongo, 2003).

All these models contain associations of variables which are considered relevant for explaining or predicting health seeking behaviours (Hausmann-Muela, Ribera and Nyamongo,

2003). Notably, several components in the different models of health seeking behaviour overlap (Stekelenburg, 2004). However, these models do not dictate the exact variables and methods that must be used; hence, very frequently, the models are adapted by researchers to the specific nature of their research or study area. Alternatively, researchers may combine various models, with the principal aim of increasing the range of possible key factors, rather than to achieve theoretical advancements. Therefore, the principal objective for employing a model is to identify problematic areas in one's research in order to come up with solutions (Glanz, Rimer and Viswanath, 2008; Hausmann-Muela, Ribera and Nyamongo, 2003). For this reason, some of the health seeking behaviour models were scrutinised in the following sections, while seeking a model that fits with this study.

3.2.1 Health Belief Model (HBM)

The development of the HBM came to public attention in the early 1950s. It was developed by a group of social psychologists to understand the widespread failure of individuals to accept disease preventives or screening tests for the early detection of asymptomatic disease (Janz and Becker, 1984). Burke (2013) added that the HBM is an intrapersonal (within the individual's knowledge and beliefs) theory used in health promotion to design intervention and prevention programmes. Therefore, the underlying concept of the original HBM is that health behaviour is determined by personal beliefs or perceptions concerning a disease and strategies available to reduce its occurrence (Hayden, 2009). This is categorised into three parts, specifically; individual perceptions, modifying factors and likelihood of action.

Individual perceptions encompass perceived susceptibility and perceived severity. This highlights the knowledge and beliefs that a person has about his/her behaviours and the outcomes they could have. The *modifying factors* scrutinise and use outside influences to assess how threatened a person feels by the outcomes of continuing the same behaviours that put them at risk, which includes; perceived threat, environmental factors and cues related to action. The last category examines the *likelihood of action* by weighing out the perceived benefits and perceived barriers to acting, as well as determining the worth (Burke, 2013; Rosenstock, Strecher and Becker 1988).

Rosenstock (1966) noted the three core strengths of the model: it accounts for major variations in behaviour in the groups of individuals studied across a variety of settings [1]; it is composed of a small number of elements [2]; and it appears to be capable of application to a wide variety of health actions and beliefs [3]. Moreover, the HBM attempts to predict health-related behaviours by accounting for individual differences in beliefs and attitudes (Rosenstock, 1966). Nevertheless, this model has been criticised for not accounting for other factors that influence health behaviours. For example, habitual health-related behaviours, for instance smoking or seatbelt buckling may become relatively independent of conscious health-related decision-making processes. In addition, some health-related behaviours are engaged in for reasons unrelated to health, such as exercising for aesthetic reasons; these are not accounted for by the model (LaMorte, 2016). An added shortcoming of the model is that HBM stresses personal responsibility which may lead individuals to believe that they are at fault for their inability to solve their own health problems (Janz and Becker, 1984). Unfortunately, health problems are regularly more complex or may be caused by factors which an individual has less personal control over. For example, Janz and Becker

(1984) perceived that environmental or economic factors outside an individual's control may prevent engagement in desired behaviours and these are not considered in the HBM model.

3.2.2 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) was developed in 1967 by Ajzen and Fishbein. In 1988, the Theory of Planned Behaviour (TPB) was added to the TRA model to address the inadequacies that Ajzen and Fishbein had identified (Ajzen and Fishbein, 1988). The TRA is a commonly used and strongly supported persuasion theory to identify components that predict behaviour. Additionally, TRA was developed to explain influences on behaviours that involve conscious decision making. This proposes a *causal* model of the reasoning processes leading to behavioural choices and can be used to guide the content of persuasive messages or interventions (Greene, 2009).

In developing this theory, Fishbein and Ajzen (1988), assumed that individuals are usually relatively rational and make organised use of the information available to them. Hence, the view that people consider the implications of their actions before they decide to engage or not engage in a behaviour. The model predicts behaviour based on seven causal variables: behavioural intention, attitudes, subjective norm, belief strength, evaluation, normative belief and motivation to comply (Greene, 2009) (see Figure 6). Moreover, TRA hypothesises that the best predictor of volitional behaviour is one's behavioural intention to perform the behaviour (Fishbein and Ajzen, 1975); thus, the behavioural intention is the result of both individual influence (attitude) and normative influence (subjective norm) (Hale, Householder and Greene, 2002). Nevertheless, Fishbein and Ajzen (1975) also indicated that it is constantly

impracticable to measure a person's intention prior to his/her performance of the behaviour; consequently, the measure of intention obtained may not be representative of the person's intention at the time of the behavioural observation.

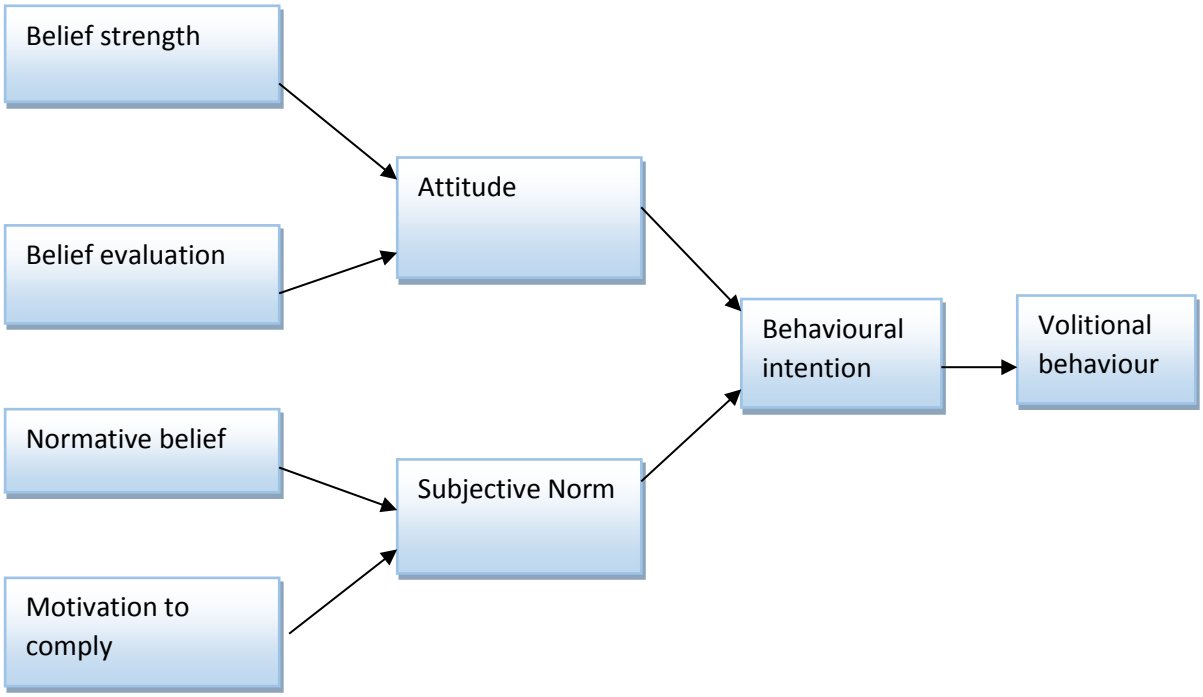


Figure 6: Theory of Reasoned Action (TRA) from Hale, Householder and Greene (2002)

One of the greatest limitations with regards to the TRA was with people who have little (or feel they have little) power over their behaviours and attitudes. Hence, to balance this observed deficiency, Ajzen added a third element (perceived behavioural control) to the original theory (Ajzen and Fishbein, 1988). This led to the development of the Theory of Planned Behaviour (Greene, 2009; Ajzen, 1991).

The TRA has also been criticised for the narrow range of behaviours to which it is applied; the aim of TRA was to explain volitional behaviours; therefore, its explanatory scope excludes an

extensive range of behaviours, such as those that are spontaneous, impulsive, or mindless. It should be mentioned that TRA also excludes from its scope behaviours that may require special skills, unique opportunities or resources to be performed (Hale, Householder & Greene, 2002).

3.2.3 Theory of Planned Behaviour (TPB)

Ajzen (1991) presented the theory of planned behaviour (TPB) to expand the predictive model to behaviours not under volitional control. The TPB is similar to TRA, with the addition of a component called *Perceived Behavioural Control* (PBC) to predict both behavioural *intention* and behaviours. PBC is a person's perception of how easy or difficult it is to perform a behaviour. It is a function of one's beliefs regarding control and one's perceived power (Greene, 2009). There are three conceptually independent determinants of intention postulated for the TPB: 1] Attitude toward the behaviour (this refers to the degree to which an individual has a favourable or unfavourable evaluation of the behaviour in question); 2] Subjective norm (which refers to the perceived social pressure to carry out or not carry out the behaviour); and 3] The degree of perceived behavioural control (which refers to the perceived ease or difficulty related to performing the behaviour and is also assumed to reflect past experience, in addition to possible difficulties) (Ajzen, 1991) (see Figure 7).

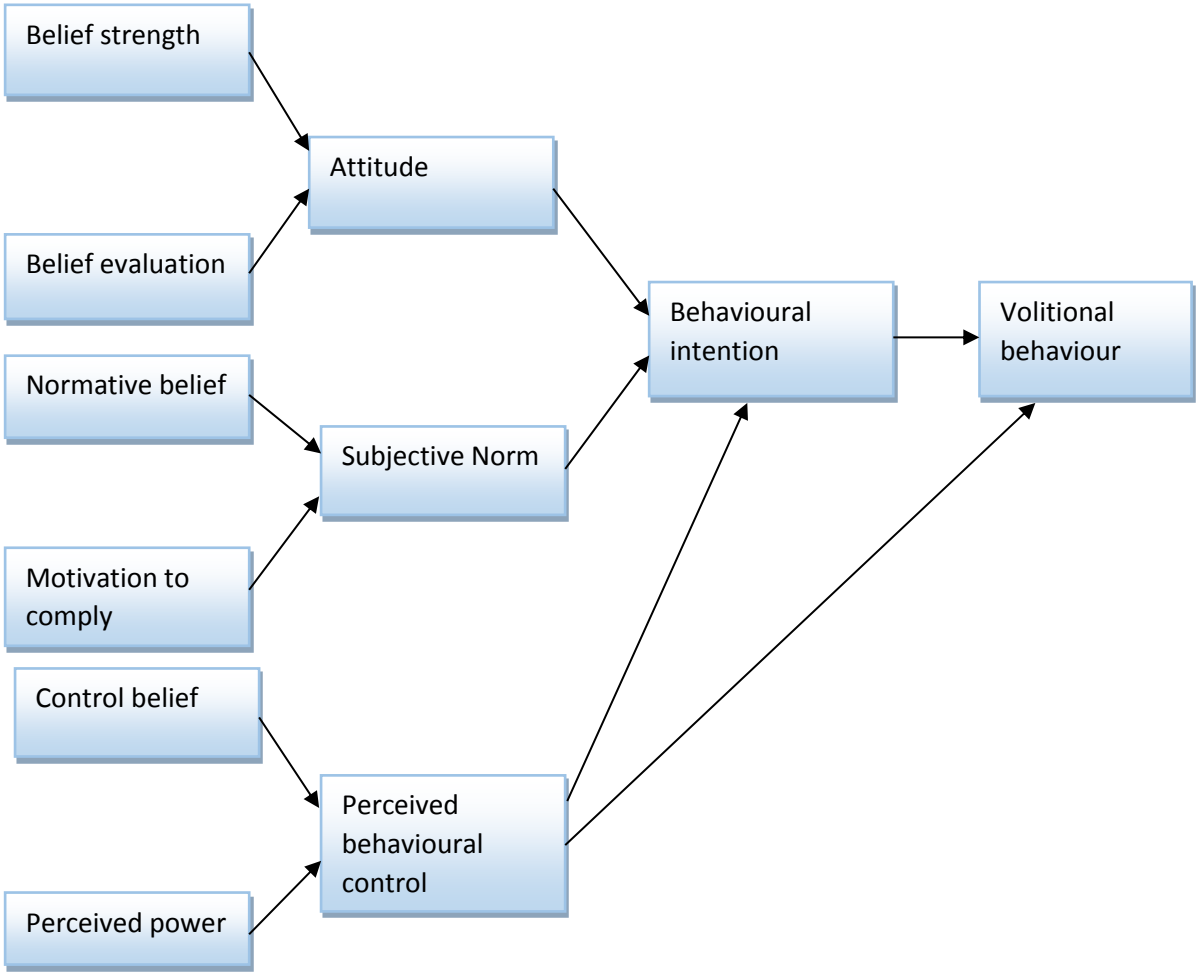


Figure 7: Theory of Planned Behaviour (TBP) from Hale, Householder and Greene (2002)

At its core, the TPB is concerned with the prediction of intentions and illustrates behavioural, normative and control beliefs, in addition to the attitudes, subjective norms and perceptions of behavioural control that are assumed to feed into and explain behavioural intentions (Ajzen, 2011). However, Ajzen (1991) emphasised that a measure of perceived behavioural control may add little to the accuracy of behavioural prediction in certain conditions. For example, in conditions when a person has relatively little information concerning the behaviour, when requirements or available resources have changed or when new and unfamiliar elements have been involved in the situation. Therefore, a person will attempt to carry out behaviour if he/she believes the advantage of success outweighs the disadvantage

of failure. They are also liable to succeed in the attempt if they have sufficient control over internal and external factors, which in addition to efforts also influence the attainment of the behavioural goal (Ajzen, 1985). As a result, this model operates on the premise that the stronger the intention to engage in behaviour, the more likely it is to be performed. Hence, a behavioural intention can find expression in behaviour only if the behaviour in question is under volitional control (Ajzen, 1991).

The advantages of the TPB are that it considers the motivational aspects of personal disease control and the influence of social networks and peer pressure. The limitations are a potential overemphasis on psychological factors, while underestimating structural factors like limited access or availability of resources (Hausmann-Muela, Ribera and Nyamongo, 2003). Additional limitations also highlighted by Ajzen and Fishbein (1988) are that factors, for instance personality and demographic variables are not taken into consideration. They added that some assumptions may not always be the case, such as the perceived behavioural control to predict actual behaviour and that the longer the time interval between behavioural intent and behaviour, the less likely the behaviour will occur.

3.2.4 Andersen's model of healthcare utilisation

Andersen's model was initially developed to assist the understanding of why families use healthcare services; nonetheless, this was later shifted to individuals to take account of the heterogeneity within family units (Andersen, 1995). The initial model suggests that peoples' use of healthcare services is linked to their predisposing factors, factors that are likely to enable or impede the use of services, and furthermore, their need for care (Andersen, 1995).

Since its inception in the late 1960's, this model has undergone further modifications. The Phase 2 model was modified by Aday and other collaborators (Andersen and Newman, 1973; Aday and Andersen, 1974), who explicitly included the healthcare system. This gave recognition to the importance of the national health policy, resources and their organisation in healthcare systems as essential determinants of the populations' use of services. The outcome of health services (consumer satisfaction) was also added to this model. The third phase of the model included both perceived health status and evaluated health status as outcomes of health services. It also recognised the external environment and personal health practice as important contributing factors to understanding the use of the health service. The fourth phase of the model (emerging model) has gained more complex conceptualisation, emphasising the dynamic and recursive nature of the use of health services (Andersen, 1995). However, despite the diverse adaptations of the model, the fundamental declaration of the behavioural model remains unchanged; that is, the predisposing, enabling and need factors have continued to be the core of the model (Tan, 2009).

The predisposing component of this model refers to variables that exist prior to the start of the illness that describes the individual's tendency to use services. Measures of this component include age, sex, race, religion and beliefs pertaining to health and illness (Andersen and Davidson, 2001). Enabling components include the resources individuals have available to be able to access services. Individual or family resources include income and insurance coverage, whilst attributes of community of residence include rural-urban character and region. Lastly, the need component refers to the degree of illness that brings

about the need to use the health service. This may be as *perceived* by the individual or *evaluated* by the healthcare delivery system (Aday and Andersen, 1974) (see Figure 8).

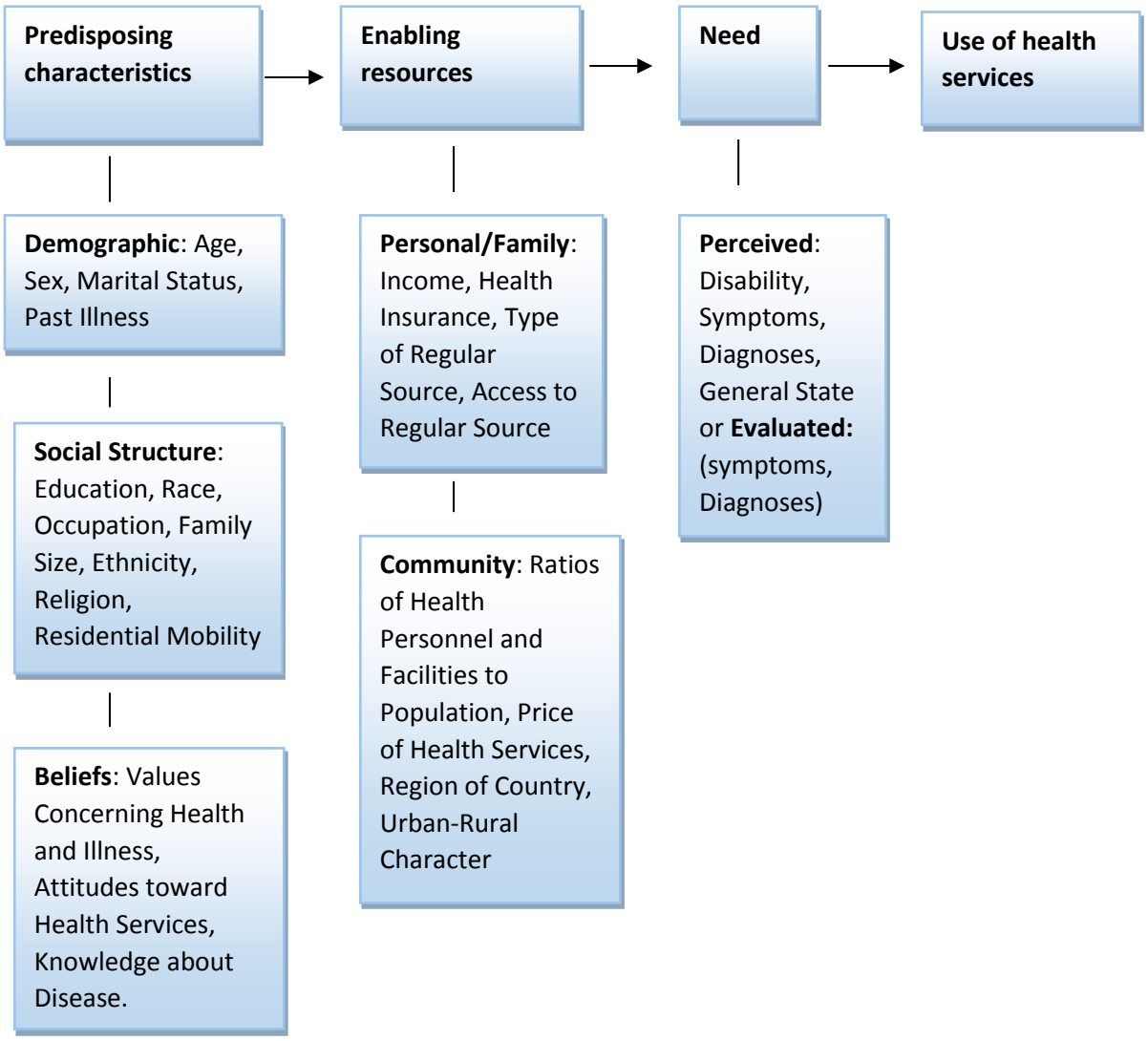


Figure 8: Illustration of the initial behavioural model from Andersen (1995)

A number of limitations have been highlighted regarding Andersen's model. However, Andersen provided a rebuttal to most of the criticisms of the model in his 1995 publication titled 'Revisiting the behavioural model and access to medical care: Does it matter?' For example, one of the issues raised by Randall (1981) was whether the model was designed to

predict or *explain* the use of health services. Andersen however, pointed out that the model was designed to provide both predictive and explanatory answers. He noted that the predisposing, enabling and need components of the model independently predict use. Likewise, they could also provide an explanatory process, whereby a predisposing factor was linked to an enabling factor, that was necessary, but not sufficient, to potentiate healthcare use. This in turn subsequently becomes linked to a defined need for the use of services to occur. The model has also been criticised for not paying attention to cultural and social networks (Guendelman, 1991); nonetheless, Andersen stated that these concepts fit within the *social structure* component of the *predisposing factors*.

In addition, Coulton and Frost (1982) in their study on the 'use of social and health services by the elderly', revealed the emphasis placed on the *need* factor by Andersen, as compared to the predisposing and enabling factors. Andersen, nevertheless, reiterated that the need factor is also a subjective construct. Hence, the 'need' factor is divided into *perceived need* (an individual's judgement concerning their health), which is a subjective measure, and *evaluated need* (healthcare provider judgement with reference to the health of the individual), which is a more objective measure. Andersen further noted that evaluated need also has its deficiencies and may not be completely objective, based on the competency of the health professional carrying out the assessment.

In addition to the above, Andersen also defended the model, highlighting its importance in informing national health policy and provision of comprehensive indicators for policy change (Andersen, 1995).

3.3 Theoretical framework for this research

Based on the advantages and limitations of some of the healthcare seeking behavioural models (Health Belief Model (HBM), Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB) and the healthcare utilisation model) examined in the above sections, Andersen's healthcare utilisation model was deemed most appropriate for this study.

One of the major shortcomings of the other models reviewed, as compared to Andersen's model, is that they emphasise exclusively on the individual as being responsible for the reasons to utilise healthcare services or seek care. Therefore, the other models neglect the roles of key factors, such as demographic, environmental and economic factors which are out of the control of the individual in the decision-making process in relation to utilising healthcare services. Nevertheless, Andersen's model recognises such elements (MacKian, 2003).

In addition to the above, Andersen's model has been employed by numerous studies to understand healthcare utilisation, thus, acknowledging its flexibility and adaptiveness (Phillips et al., 1998). For example, this has been applied to understand the utilisation of mental health services, utilisation of dental services and also utilisation of informal health services such as drug vendors and traditional healers has been explored using this model (Fleury et al., 2014; LaVeist et al., 1995; Fosu, 1989; Evashwick et al., 1982). Likewise, a systematic review conducted by Babitsch et al. (2012) on studies that employed Andersen's healthcare utilisation model noted that aside from its application in the healthcare system, the model has been used in relation to many different diseases. Their findings confirmed that studies had substantial differences in the variables used. Majority of variables listed in their

review of the predisposing factors were age, marital status, gender/sex, education and ethnicity, while the enabling factors were income/financial situation, health insurance and having a usual source of care/family doctor. The need factors listed were evaluated health status and self-reported/perceived health, as well as a wide variety of diseases. Thus, this model also lends its application to this study.

In line with this study, variables identified in previous studies of healthcare self-referral, as shown in the literatures reviewed, can be situated within the Andersen's framework. For example, factors such as age, gender and level of educational qualification were identified by several studies as factors associated with healthcare self-referral (de Valk et al., 2014; Dolan and Dale, 1997; Singh, 1988; Linden et al., 2014; Charante et al., 2007; Gross et al., 1999; Guo et al., 2002; Braquehais et al., 2014), which can be situated within the 'predisposing factors' to self-refer in Andersen's framework. Variables such as diagnosis, medical complaints and duration of symptoms can also be situated within the components of the 'need' to self-refer (Forrest et al., 2001; Kulu-Glasgow et al., 1998; de Valk et al., 2014; Dolan and Dale, 1997; Charante et al., 2007; Linden et al., 2014).

Regarding the enabling factors, different measures generated from the various studies on healthcare self-referral fall within this bracket, such as travel time, patients without permanent physicians, waiting time, opening times of facilities and more services provided by the specialist (Gross et al., 1999; Kulu-Glasgow et al., 1998; Dolan and Dale, 1997). Accordingly, Andersen's model provided a framework to guide this research because of the various variables it can capture and moreover, the flexibility it provides to tailor and

incorporate variables based on the nature of the research (Glanz, Rimer and Viswanath, 2008).

Relating this current study to previous studies in the field of healthcare self-referral, only two studies, one based in Canada (Afilalo et al., 2004) and the other in Israel (Rassin et al., 2006) were found to have employed the use of the components of Andersen's healthcare utilisation model regarding predisposing, enabling and need factors to examine healthcare self-referral. Afilalo et al. (2004) attempted to describe non-urgent patients' reasons for not seeking care with their primary care provider before presenting to the emergency department. However, their study was a secondary analysis of data collected from a prospective observational study. This was initially meant to determine which patient characteristics influenced length of stay at the emergency department. Therefore, most variables may not have been specifically tailored to understand circumventing the primary level of care to the referral facilities, which is one of the limitations of using secondary data. In addition, taking the Canadian and Israel context into consideration where Afilalo et al. (2004) and Rassin et al. (2006) conducted their study, and Nigeria, where this present study was performed, they are noticeably different. Thus, factors that predispose, enable and influence the need to self-refer may as well be different. Also, the above mentioned studies did not examine the relationships between the different factors using the Andersen's model, which this study expands on.

Taking the above into consideration, this study adopted Andersen's initial (Phase 1) behavioural model of health services utilisation in the development of a theoretical framework, to comprehend healthcare self-referral to secondary healthcare facilities, as a result of bypassing the PHC facilities. Accordingly, the purpose of the original behavioural model was aimed at discovering conditions that either facilitate or impede utilisation, which

is in tandem with the aim and objectives of this research. Notably, Andersen's model is a service user model. Therefore, the model was employed to guide and structure the self-referred service users' aspect of Objective 1 (qualitative approach) of this research and to subsequently shape Objective 2 (quantitative approach) of this research.

3.4 Summary

This chapter provided a critique and analysis of a few of the healthcare behavioural models, consequently, highlighting the strengths and weaknesses of the different models. This further provided a rationale for adopting Andersen's healthcare utilisation model as the theoretical framework for this study. Despite some of the weaknesses of Andersen's model, it was perceived to be a more flexible model compared to the other models reviewed. Additionally, the Andersen's model was also established to be more encompassing, thereby allowing the researcher to easily tailor the concepts of the model to fit the research. Accordingly, the model has been extensively used in researches that examined different aspects of the healthcare system and therefore, lends its application to this research. The next chapter of this research addresses the methodology.

4.0 Chapter Four: Methodology

4.1 Introduction

The details of the approaches employed for this study are provided in this chapter. It begins by discussing the research design (mixed method), which includes the rationale for the design. An overview of the epistemology underpinning this study is provided. A description of the primary research setting is also provided in this chapter.

4.2 Research design

This study adopts a mixed method research design to address the objectives of the research. Mixed method research combines quantitative and qualitative approaches in a single study (Onwuegbuzie, 2004). Creswell (2011) noted that mixed method research should at least comprise one quantitative approach which deals with collecting numbers and one qualitative method which involves collecting words in a single study. Primarily, independent quantitative and qualitative research pre-dates mixed method research (Flick, 2011; Bryman, 1992). The quantitative method is reported to have dominated the field of research up to the 1970s before the rise of the qualitative approach (Robson, 2011). The advent of mixed method research in the 1990s has witnessed the method gradually establish its presence among qualitative and quantitative research methods (Johnson and Onwuegbuzie, 2004).

The emergence of mixed method research brought with it the debate about combination of methods within a single piece of research. This led to questions about the movement between

paradigms because epistemology and method are viewed as closely inter-related (Brannen, 1992). Nevertheless, Johnson and Onwuegbuzie (2004) proposed that a philosophy that attempts to fit together the insight provided by qualitative and quantitative research into a workable solution should be adopted by mixed method researchers. Thereby, suggesting that a pragmatist stance should be considered. The adoption of a mixed method approach for this research is therefore in tandem with the pragmatic epistemological stance of the researcher. James (1907) also indicated that a vital component of the pragmatic view is the *open-minded* approach which allows for the occurrence at any time of new data and new ways of dealing with them. Therefore, the complex nature of this research calls for solutions beyond only numbers or words. The combination of both qualitative and quantitative data helps to provide a complete analysis of the problem (Creswell, 2011).

Mixed method research has several advantages, which includes the ability to combine the attributes of both the qualitative and quantitative methods and that covers their individual weaknesses. Additionally, it also provides a comprehensive understanding of the problem being investigated. However, the weaknesses of the mixed method approach are associated with the complexity of the design. This method also consumes more time and resources when compared with isolated quantitative or qualitative design (Creswell, 2014).

Bowling (2009) however, advised against viewing mixed method research as 'quantitative versus qualitative', but rather as a process of identifying innovative strategies for combining different approaches (qualitative and quantitative) in a single study to address a problem. Likewise, this researcher acknowledges that a strategy that combines the two approaches

(mixed method) is not necessarily superior to those based on a single approach, as pointed out by Bryman (1992). Connolly (2007) also stated that the belief that the qualitative method is better than the quantitative method or vice-versa is not judicious. Shedding more light on this, he ascribed this to a builder holding the view that *hammers* are better than *screwdrivers*. He noted that both tools are useful but for execution of different tasks. Accordingly, this study is guided by the research problem; and thus, is the justification for employing mixed method design to address the different objectives (Johnson and Onwuegbuzie, 2004).

Available literatures in this area revealed that different methods have been employed to understand the concept of healthcare self-referral. Most of the studies have been inclined to quantitative methods to examine factors that predict healthcare self-referral (Linden et al., 2014; de Valk et al., 2014; Land and Meredith, 2011; Charante et al., 2007; Dolan and Dale, 1997). Similarly, those that have tried to also look at the relationships between the predictors of healthcare self-referral have been mainly quantitative (Visser et al., 2015; Alyasin and Douglas, 2014; Siminski et al., 2008). Relatively, very few studies have employed the qualitative method to explore different aspects of this topic (Beache and Guell, 2016; Kangovi et al., 2013; Durand et al., 2012; Grant et al., 2010; Berry et al., 2008). Mixed method has however been the method that has been adopted the least in this area.

Studies that have employed the mixed method design included Kahabuka et al. (2011) who sought to identify factors associated with bypassing PHC facilities among caretakers seeking care for children under-five in Tanzania. To assess how the hospital referral system in Namibia was operating, Low et al. (2001) employed the mixed method approach to address their

research problem. Both Kahabuka et al. (2011) and Low et al. (2001) employed a concurrent mixed method design in contrast to this study, which was an explorative sequential mixed method design. In addition, the research by Kahabuka et al. (2011) was conducted among caregivers of children under-five, while for Low et al. (2001) the qualitative aspect of their study was a focus group discussion among community members compared to this study, where the qualitative aspect was among patients self-referring to the referral facility. However, the mixed method approach adopted by Kahabuka et al. (2011) and Low et al. (2001) was driven by their research problem and thus, proved vital in answering their research problem and likewise for this study.

Healthcare self-referral is an under researched area in Nigeria. As previously highlighted, global literatures available in this area are predominantly studies conducted in developed settings (Kraaijvanger et al., 2016) and healthcare delivery differs considerably between settings. Furthermore, globally, studies investigating this problem from the position of the healthcare providers are extremely scarce. Therefore, there was a need for qualitative exploration of the concept of healthcare self-referral among service users and healthcare providers to understand the contextual factors related to this problem, as it applies to the Nigerian healthcare system. The qualitative aspect also paved the way for development of a quantitative data collection tool contextual to the population being studied, which allowed the findings from the qualitative approach to be examined within a larger population (Bowling, 2009; Tashakkori and Teddlie, 2003).

Conducting this research, so that the results of the qualitative phase informed and facilitated the approach of the quantitative phase allowed the understanding of the research problem to evolve. Therefore, the research objectives were addressed from an initial exploration and conceptualisation of the problem and followed by extensive description and hypotheses testing of specific factors that were deemed to interact with each other to impact on healthcare self-referral. The flexibility provided by this phased approach was particularly significant within a subject that is under researched in a setting like Nigeria. In line with the objectives of this study, the exploratory sequential mixed method design was deemed appropriate when compared with the other forms (explanatory sequential design, convergent parallel design and embedded design) of mixed method approaches (Bryman, 2012).

Therefore, data collection was conducted in two phases. The first phase of this research was the qualitative approach which addressed Objective 1, while the second phase of the research was the quantitative approach which addressed Objective 2. Figure 9 provides a diagrammatic illustration of the exploratory sequential mixed method adopted for this research.

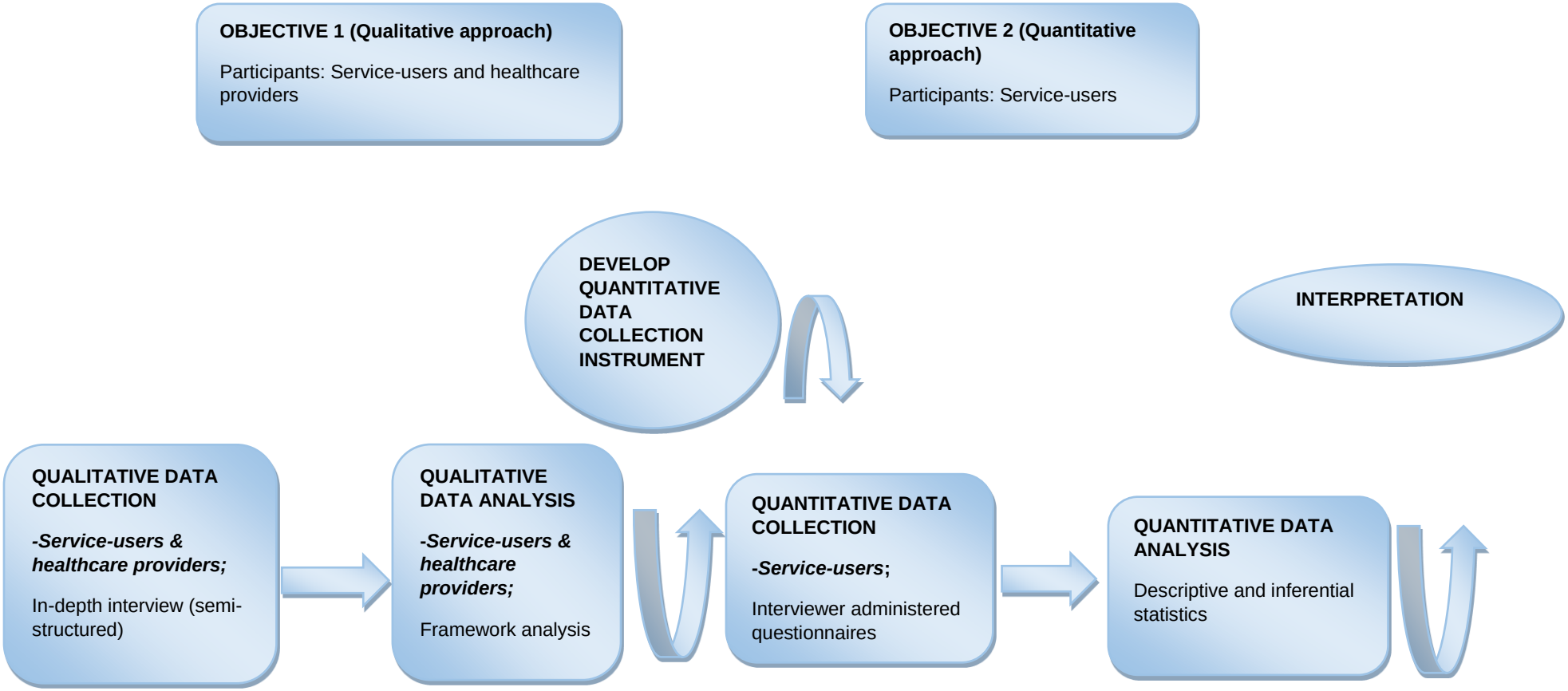


Figure 9: Exploratory sequential mixed method for this study (Adapted from Creswell and Clark, 2011)

4.3 Epistemology

Epistemology deals with the nature of knowledge and the reliability of claims to knowledge (Flew, 1979). This seeks answers to questions such as 'what can be known?' and 'How do we determine whether our beliefs about the world are true or reliable' (Stroll and Popkin, 1979, p. 21). Therefore, this helps us to shape how we acquire knowledge and how we develop concepts in our minds (Cline, 2014).

The epistemological stance related to pragmatism influenced this research. It is documented that the pragmatic doctrine originated from America in the late nineteenth and early twentieth centuries. Chauncy Wright, Charles Sanders Pierce and William James are generally acknowledged as the founders of this paradigm (Stroll and Popkin, 1979). Pragmatism embraces a pluralistic approach to problems and is also problem-centred; hence, it entails endeavouring to employ different pathways of finding solutions to research problems (Creswell, 2014; Popkin and Stroll, 1993). This is contrary to the philosophy of the purist, such as the positivist or interpretivist who takes fixed positions on how to address research problems (Creswell, 2014).

In line with a pragmatic outlook, this study set out to identify and examine the relationships of factors linked with service users self-referring to secondary healthcare facilities in the Nigerian context. To develop a holistic understanding of the problem associated with healthcare self-referral, the position of both the service users and healthcare providers were explored. Accordingly, considering that healthcare systems differ from one setting to the other, a contextual approach was required to address this problem. Likewise, Charles Pierce

suggested that from a pragmatic stance, there is no absolute guarantee of truth, stating that what appears self-evident to one group or at one point may not be to another, and what appears self-evident at a particular period may not in another period (Ayer, 1968). This agrees with the view of James (1907), who noted that the universe is pluralistic, possessing many different and divergent characteristics and possibilities that cannot be examined and understood entirely at any given time. Instead, the universe must be studied as it emerges, develops and unfolds. James (1907) considered each stage of comprehension as tentative and subjective to correction in terms of its future growth and development. In tandem with James' thoughts, the referral system is a complex system which differs in different settings (Foot, Naylor and Imison, 2010); therefore, its understanding has to be contextualised by adopting various methods as appropriate to the problem.

Equally, Johnson and Onwuegbuzie (2004, p. 18) described the pragmatist position as a "dynamic adaptive process where the researcher continually tries to improve upon past understandings in a way that fits and works in the world in which he or she operates". Accordingly, little is known about the factors that influence healthcare self-referral in the context of Nigerian healthcare. Therefore, this can be viewed as an evolving aspect of the Nigerian healthcare system, where there is a need for continuous exploration and understanding.

An additional attribute of the pragmatist as stated by John Dewey is that the pragmatist views a problem as a need to act, which triggers inquiry. The inquiry in turn addresses the problem by arriving at a belief which makes the formation of an effective plan possible (Quiton, 1977). As a result, instead of treating theories and concepts as abstractions, the pragmatist regards

them as a proposal for undertaking something within the realm of actual experience (Stroll and Popkin, 1979). Therefore, activities arise as an attempt to deal with practical difficulties that they are confronted with and attempt to use ideas to address the difficulties (James, 1907). James (1907) further implied that the pragmatist tends to employ a method of scrutinising ideas and theories with respect to their function and application to experience (James, 1907). Accordingly, this research addresses practical issues within a local context, with the aim of assisting with informing policy and practice through the identification and examination of factors associated with healthcare self-referral.

4.4 The research setting: Niger State

Niger State is one of 36 states in Nigeria. It is the largest State in terms of land mass and one of the centrally located states (North Central Region) (Niger State, 2013). The State occupies an area of approximately 76,363 square km. It has an estimated population of roughly 3,950,249 with reference to the 2006 census (Niger State Planning Commission, 2011a). Niger State is bounded by Kaduna State in the North East, Kebbi State in the North West, Kwara State in the South West, Kogi State in the South, Zamfara State in the North, the Republic of Benin in the West and the Federal Capital Territory, Abuja along the South-Eastern border (Niger State Government of Nigeria, 2010).

Niger State includes twenty-five Local Government Areas (LGAs). Like any other state in Nigeria, these LGA's are distributed into three senatorial districts (Niger State Planning Commission, 2011a). The south senatorial district has eight LGA with five general hospitals[2],

[2]General hospitals are secondary healthcare facilities in Nigeria.

the east senatorial district has nine LGA with six general hospitals, while the north senatorial district has eight LGA with seven general hospitals (See Table 1) (Niger State Planning Commission, 2011a).

Table 1: Lists of different LGA with their respective general hospitals in the three senatorial zones

LGA in South Senatorial District (Zone A) + General hospital	LGA in East Senatorial District (Zone B) + General hospital	LGA in North Senatorial District (Zone C) + General hospital
Bida General Hospital Bida	**Bosso**	**Agwara**
Agaie General Hospital Agaie	**Chanchaga** General Hospital Minna	**Borgu** General Hospital New Bussa
Katcha	**Gurara**	**Kontagora** General Hospital Kotongora
Lavun General Hospital Kutigi	**Paikoro** General Hospital Kaffin Koro	**Mariga** Aminu Isa General Hospital Mariga
Edati	**Rafi** General Hospital Kagara	**Wushishi** General Hospital Wushishi
Gbako	**Shiroro** General Hospital Kuta	**Magama (2 *GH)** General Hospital Nasko General Hospital Auna
Lapai (2 GH) General Hospital Lapai General Hospital Gulu	**Munya**	**Mashegu**
Mokwa General Hospital Mokwa	**Suleja** General Hospital Suleja	**Rijau** General Hospital TungaMagajiya
	Tafa General Hospital Tafa (Sabon Wuse)	

(Retrieved and adapted from the Nigeria Election Incident Report System, 2014). Note: *GH= General Hospital (secondary healthcare facility).

Niger State battles with some of the worst indicators of health. For example, the maternal mortality rate is roughly 130/100,000 live births, the infant mortality rate is 260/1000 live

births and the HIV/AIDS prevalence stands at 6.2%. Amid this, Niger State is also faced with the challenges of ineffective healthcare delivery due to inadequate manpower both in terms of quantity and quality (Niger State Government of Nigeria, 2010). Niger State has approximately 1,323 PHC facilities spread across the State. It has eighteen secondary healthcare facilities and two tertiary healthcare facilities that cater for its population. Nevertheless, it continues to struggle with a shortage of healthcare providers to render the needed services (Niger State Planning Commission, 2011b).

According to the Federal Ministry of Health (FMoH), based on the 2007 health system assessment, the north central region, which comprises six States including Niger State, has approximately 1,841 doctors working in the region. Additional healthcare professionals include 5,778 nurses and midwives, 434 medical laboratory scientists and 1,342 pharmacists. The distribution of healthcare professionals in Niger State from this numbers is roughly 244 doctors (117 in the public sector and 127 in the private sector), 109 pharmacists (44 in the public sector and 65 in the private sector) and 988 nurses in public facility institutions (Niger State Government of Nigeria, 2010). Despite this study focuses on the public health sector, healthcare services are also augmented by the private sector, with an estimated 446 registered private healthcare facilities (clinics, maternities and laboratories) primarily within the primary level of care and scattered across the State (Niger State, 2013).

The educational sector of Niger State has also continued to be a challenging area, with the State government of Niger striving to improve literacy levels. This gap is evident, as observed between the national adult literacy level of 61.3% and Niger State literacy level of approximately 37.5% (UNESCO Institute for Statistics, 2016; WHO, 2014b; UNESCO, 2012).

This has led to Niger State missing goal four of Education For All (EFA) set out in Dakar in 2000. This goal emphasised achieving a 50% level of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults (UNESCO, 2016). In 2009, the numbers of primary schools throughout the State was 2,922; whilst secondary school numbers were reported to be 435. For tertiary institutions, there are two colleges of education, one in the State capital (Minna) and the other in Kontogora LGA. There are also two polytechnic institutions, one in Bida LGA and the other in Wushishi LGA. Two universities are also situated within the State; the federal university is situated in Minna, whereas the State University is located in Lapai LGA (Niger State Planning Commission, 2011b).

Aside from the fact that the researcher is originally from Niger State, one of the reasons for choosing Niger State as the study setting was due to the objective of the Niger state government to consolidate primary, secondary and tertiary care services by way of ensuring an efficient and effective referral system that serves the people (Niger State Government, 2013). To achieve this objective, the State succeeded in constructing 100 primary healthcare centres and renovated existing primary health centres across Niger State. This was completed in partnership with Millennium Development Goals (MDGs) at the inception of the fourth Nigerian democratic government which came into power in 1999 (The Commonwealth Finance Ministers meeting, 2010). In addition, a few of the existing secondary healthcare facilities were also renovated and construction of three new general hospitals (one in each senatorial district) was added to the existing ones (Atori, 2014). However, the optimal operation and utilisation of these facilities may not be achieved, and the efforts put into developing these facilities may also be wasted without an adequate understanding of how and why service users utilise the healthcare referral facilities the way they do.

4.5 Summary

A mixed method design was employed to address the two objectives of this study. Specifically, the exploratory sequential mixed method was deemed suitable for this study. This allowed for an initial exploration of the concept of the study to be conducted as applicable to the local context, which subsequently culminated in the design of a quantitative data collection tool and testing of the hypotheses developed (subsequent chapters will elaborate on this). The philosophical position of the researcher regarding this study aligned with the world view of pragmatism which guided the methodology of this study. This is also in tandem with the adoption of a mixed method design in this research. A detailed description of the primary research setting for this study was also provided. Therefore, the following chapter in this thesis discusses the diverse strategies adopted to address Objective 1 (qualitative approach) in this study.

5.0 Chapter Five: Methods for Objective 1

5.1 Introduction

This chapter presents the methods employed to address the first objective of this research, which was;

- To identify the factors that influence service users' self-referral to secondary healthcare facilities by exploring the perceptions and experiences of the service users' and healthcare providers.

This objective was addressed using a qualitative approach; thus, the different strategies employed for the data collection, data analyses, sampling technique, sample size, interview schedules and recruitment procedures are presented in this chapter. The approach adopted in this study to ensure the reliability and ethical considerations are also highlighted. Accordingly, the methods adopted for the two groups of participants (service users and healthcare providers) that addressed Objective 1 of this research are presented separately. Nevertheless, the methods employed were similar for both the service users and healthcare providers.

5.2 Service users

5.2.1 Data collection

The qualitative method helps to understand and interpret more personal meanings. It also generates complex and detailed accounts from participants regarding a problem**.** In addition,

the qualitative method gives a voice to people by allowing participants to talk about an issue in their own words, free from constraints (Braun and Clarke, 2013). This can be explored through different methods, such as interviews and Focus Group Discussions (FGD) (National Institute of Clinical Studies, 2006). The ability to ask participants questions that are meaningful to them and the opportunity to also receive responses in the words of the participants and constructs given to issues is an important strength of qualitative research (Guest, MacQueen and Namey, 2012).

Generally, FGD and in-depth interviews (unstructured, semi-structured and structured) are the most common techniques for collecting qualitative data, and the type of data they can generate are similar (Bowling, 2009). They both offer the ability to profoundly examine the why and how of human experiences, behaviour, perceptions and beliefs. Moreover, they can produce a range of perspective on a given topic and are also able to supplement quantitative data where necessary (Guest, Namey and Mitchell, 2013). Therefore, the advantages and disadvantages of FGD and in-depth interview were considered prior to making a choice for a suitable data collection technique to fit this study.

Despite the advantages of FGD to be able to build on the dynamics of the different participants in a group by generating varieties of viewpoints and stimulating debates, there is also the possibility of having silent and dominant voices in the discussions. Consequently, this only pushes forward the views of the more vocal participants (CPRC, 2016; Guest, Namey and Mitchell, 2013). FGD can also be conducted swiftly provided there are suitable participants, a good discussion guide and moderator, and an appropriate setting (Guest, Namey and Mitchell, 2013). Nevertheless, getting the desired data from FGD is not straightforward

because the group needs to have knowledge of the topic. It should be a topic that the participants are free to talk about. Furthermore, the composition and the number of participants in each group require serious consideration to be able to benefit from the data it can generate (Bowling, 2009; Merriam, 2009).

Putting this study into context, the potential difficulty anticipated from recruiting the self-referred service users to participate in a FGD was considered. This is because the service users present to the healthcare facilities from different locations, which was pre-empted. Therefore, it will be logistically difficult to assemble participants together at a particular location. The cost implication to the participants was also envisaged, if the participants had to transport themselves to any chosen location. Likewise, it would not have been cost effective for the researcher who might have had to reimburse the participants of any cost incurred, whilst participating in the research. This in turn also raises concerns about the issue of ethical consideration if the participants were to spend their own resources to participate in research. Accordingly, Wilmot (2005) stressed that the above highlighted issues be seriously considered when conducting research.

The in-depth interview was also scrutinised to consider its application in this research. This method allows for depth of answers to be generated on the topic of discussion with participants. This approach is versatile across a range of study topics and not just important for providing information but for generating understanding as well (Guest, Namey and Mitchell, 2013). In-depth interviews can explore complex and diverse patterns of behaviour, generating hypotheses and informing questionnaire development (Fox, 2006). Participants may also feel more comfortable in expressing their views using this approach; thus, allowing

for sensitive, confidential or highly personal topics to be explored using this specific medium (Boyce and Neale, 2006). The principal critique of the in-depth interview relates to the fact that it can be time consuming and prone to bias when there is a stake in the topic being researched (Boyce and Neale, 2006).

Therefore, comparing the advantages and failings of FGD in contrast to in-depth interviews (semi-structured) and taking into context the nature of this study, the in-depth interview (semi-structured) was chosen as the data collection technique of choice. As a result, an interview schedule was developed to address the objective of this research. Lists of questions guided the interview by ensuring that the potential factors that influence healthcare self-referral to secondary healthcare facilities were captured. The semi-structured interview schedule ensured that the questions were organised but not necessarily asked in a specified order (Bailey, 2007). (See Appendix 8A for details of the interview schedule for the service users).

5.2.2 Data analysis

Qualitative data analysis takes different forms (Braun and Clarke, 2013; Onwuegbuzie, Leech and Collins, 2012; Merriam, 2009). However, no consensus exists amongst qualitative researchers concerning the process of data analysis. Rather, what exists is a plurality of analyses and interpretations, which reflect the theoretical perspective or tradition within which the researcher is working (Crinson and Leontowitsch, 2006; Ritchie, Spencer and O'Connor, 2003). For example, content analysis focusses on converting qualitative data into numeric representation by counting the frequency of the coded items,

thus its been criticised for its quantitative focus and not on the meaning attributed to a concept (Braun and Clarke, 2013). While Interpretive Phenomenological analysis is grounded in the philosophy of phenomenology which basically deals with addressing issues around lived experiences of a phenomena. As such this analysis is more suited for studies around affective, emotional and intense human experiences (Merriam, 2009). Likewise, grounded theory takes the approach of formulating theory from a systematically gathered and analysed data. Thus, constant comparison is made within and between data until a theory is formulated (Bowling, 2009; Merriam, 2009) which is contrary to the objective of this research where the aim is to identify factors that influence healthcare self-referral and not necessarily the formulation of a theory. Another form of data analysis is the discourse analysis which takes cognisance of the patterns in language use. Thus, its been criticised as merely a deconstructive reading and interpretation of problem or text which does not really provide absolute answers to specific problems (Braun and Clarke, 2013). Therefore, in line with the objective of this study, the above forms of analysis were considered not suitable for this study.

Accordingly, the framework analysis was adopted for the analysis of the qualitative data (both services users and healthcare providers) of this research. This form of analysis is a systematic approach which helps to present one's data in clear and visible stages of the analysis process (Gale et al., 2013). Framework analysis is said to sit within the broad family of thematic analysis (Gale et al., 2013; Smith and Firth, 2011). This approach identifies commonalities and differences in qualitative data, before focusing on relationships between various parts of the data, thereby seeking to draw descriptive and/or explanatory conclusions clustered around themes (Gale et al., 2013).

Framework analysis borrows principles from different epistemological traditions; consequently, the conceptual approach of the framework analysis serves as an advantage for its application in this research (Ritchie et al*.,* 2003). This is in tandem with this research which is shaped by the pragmatic epistemology, which has a pluralistic approach and tends to accommodate what works to solve a research problem (Creswell, 2014). In addition, framework analysis accommodates both a priori and emerging themes as applicable to one's research (Ritchie et al*.,* 2003). Accordingly, the service users' data in this research was guided by Andersen's model of healthcare utilisation, which provided a priori themes based on the components (predisposing, enabling and need factor) of the model. Nevertheless, the healthcare providers' data was approached inductively without a priori themes. Therefore, the flexibility of framework analysis for accommodating both a priori and emerging themes made it valuable for this study.

The framework analysis also proved valuable for adoption in large and heterogenous participants of this research, such as the healthcare providers (eighteen participants) and self-referred service users (twenty-four participants). This ensured the data were easily traced and synthesised from the different individuals and groups.

Several interconnected stages are involved in the framework approach. These stages appear to follow a particular order. Nonetheless, various stages do precede others occasionally. This allows the determination of meanings, salience and connection to rest upon the creative and conceptual ability of the analyst (Richie and Spencer, 1994). The framework approach typically has 5 key stages (familiarisation with the data, identifying a thematic framework,

indexing, charting, and mapping and interpretation), which are described below to illustrate how they were applied in this research.

Familiarisation with the data

The interview with the twenty-four self-referred service-users and eighteen healthcare providers were personally conducted by the researcher. This provided the researcher with first-hand information and personal contact with the participants. The interviews were also tape recorded and the researcher listened back to the audio-recording. In addition, the researcher personally transcribed the interviews, which were checked and re-checked comprehensively. This entire process ensured that the researcher became familiar with the data. It also made it easier for the researcher to find his way through the numerous pages of transcript in the analysis by immersing himself in the data.

Identifying a thematic framework

Andersen's model of healthcare utilisation was adopted to guide the service users' aspect of this research. Therefore a priori, the predisposing, enabling and need factors of Andersen's model served as the parent themes for findings related to the service users. However, as advised by Ritchie and Lewis (2003), the researcher attempted as much as possible to stay close to the participants' accounts and language, while later introducing the theoretical concepts as they matched the data. The transcripts were read, interesting segments of the transcript were noted, and initial themes were developed. Therefore, the emerging themes from the interviews were subsequently assigned to the parent themes of the predisposing,

enabling and need components of Andersen's model as they matched the data. To ensure rigour, copies of the transcript from the different groups of participants were also read by the researcher's supervisors who advised reviewing and merging some of the themes that appeared similar.

Indexing

Ritchie and Spencer (1994) described indexing as the systematic application of the thematic framework or index to the textual form of the data. Thus, when applying an index, it simply reveals which theme or concept is being mentioned or referred to within a particular section of the data (Ritchie and Lewis, 2003). Nvivo software proved valuable in executing this task with the ease of organisation and retrieval of the large sum of data (See Appendices 9 and 10 for an example of the nodes/themes generated by the Nvivo software). Each of the transcripts (both for service users and healthcare providers) were imported into the software and each transcript was reviewed. Subsequently, the thematic framework for the service users and healthcare providers were applied to the respective transcript, while making meaning and judgement of the data.

Charting

At this point, data are lifted from their original context and are arranged in a tabular format or cells according to their appropriate thematic reference (Lacey and Luff, 2007). Charts can be either 'thematic' where each theme is placed across all respondents (cases) or by 'case chart', where each respondent is placed across all themes. In addition, one could decide to

either put the line and page references to relevant passages of the transcripts in the boxes, or include some text, for instance key words or shortened quotations, as a reminder of what is being referred to (Richie and Spencer, 1994; Lacey and Luff, 2007).

The form of representation chosen to chart this study was the 'case chart' and also the use of line and page references for a more concise representation, due to the relatively large number of participants in this study. Accordingly, the indexed themes were summarised in a tabular form. This comprised of one row per participant and one column per theme. Data were then extracted from the transcript of each participant. This was represented in the corresponding cell by the page number and line number/s of the quotes depicting a particular theme. Nvivo software proved to be valuable with the quick location and retrieval of these details.

Mapping and interpretation of data

The process of mapping and interpretation is influenced by the original research objectives in addition to the themes that have emerged from the data. This involves using the charts to define concepts, mapping the range and nature of phenomena and finding associations between themes with a view to providing explanations for the findings (Pope et al., 2000). Accordingly, the themes were inspired by the original objectives of this research. Therefore, the charts were reviewed to make connections between and within participants and across their different socio-demographics to seek explanation for the patterns of data.

5.2.3 Sampling technique

Sampling has an important role in the quality, validity and credibility of research. This is based on representing those whom the research is considering (Davis, Gallardo and Lachlan, 2010). For qualitative research, the idea is for the sample to represent the group being studied in a way that one can describe or understand the population, while quantitative research typically involves large samples to make accurate predictions mathematically (Davis, Gallardo and Lachlan, 2010). Wilmot (2005) noted that one of the characteristics of qualitative sampling is the fact that the number of cases sampled is regularly small. This is because a phenomenon only need appear once to be of value. Furthermore, in choosing a sample and sample size, a number of issues need to be thought of, such as the research objectives, target population, included and excluded criteria, budget, time period of the research and how many researchers will be working on the project (Wilmot, 2005).

Despite the importance of selecting one's sample in a systematic way to ensure that it is a credible and indicative sample, statistical representativeness is not the aim of qualitative research and qualitative sample size are generally too small to be subjected to probability theory (Brikci and Green, 2007). Hence, sampling strategy in qualitative research is significantly a non-probabilistic method, such as quota sampling, purposive sampling or convenience sampling (Guest, Namey and Mitchell, 2013).

Participants were sampled from three secondary healthcare facilities that were randomly selected from the research setting. A description of the primary setting of this research is provided in Section 4.4. Like any other State in Nigeria, Niger State is segmented into three senatorial districts (clusters). It has a total of twenty-five local government areas, shared

among the three senatorial districts. However, only eighteen general hospitals are available which are also shared among the three senatorial districts. A comprehensive list of the public secondary healthcare facilities (eighteen general hospitals) and their LGA in Niger State was presented in Table 1 (Section 4.4). Thus, one local government area with a secondary healthcare facility (general hospital) was randomly selected by way of balloting from each of the three senatorial districts, where the participants were subsequently sampled from.

The inclusion and exclusion criteria of the participants are provided below;

Inclusion criteria:

- Service users who self-refer to the General Out-Patient Department (GOPD) of the secondary healthcare facility (general hospitals) were the participants of interest for this research.
- Participants were 18 years and above.
- Participants were individuals who could understand and speak English.

Exclusion criteria:

- Service users on follow up appointment were excluded.
- Referred service users (verbal or written referral) were excluded because they had passed through the referral pathway.
- Service users below 18 years were excluded because of their inability to consent.
- Severely ill service users (those who could not communicate due to their ill health or were unconscious) were excluded.

- Patients on the wards and emergency unit were excluded.
- Service users who could not understand and speak English were excluded.

For this study, purposive maximum variation sampling based on age and gender was adopted (see Table 2 for the breakdown of participants).

Table 2: Breakdown of participants (self-referred service users) from the selected areas

Gender	Age	Tafa	Lapai	Wushishi	Total participants
Male	18-39 years	2	2	2	6
Female	18-39 years	2	2	2	6
Male	40 years and above	2	2	2	6
Female	40 years and above	2	2	2	6
Total		8	8	8	24

The aim was to obtain information from a variety of service users, in terms of age and gender to generate comprehensive views on the topic of this research (Brikci and Green, 2007; Patton, 2002). It was assumed that views regarding this topic might differ with age because some chronic medical conditions begin to evolve around the age of 40 years, for example type 2 diabetes, hypertension and arthritis (Centre for Disease Control, 2014; Diabetes in the UK, 2010; National Academy on an Aging Society, 1999). Thus, it was assumed that the likelihood of the conceptualisation of the need and place for care might differ as well. Hence, to obtain varied views, male and female participants below and from 40 years and above were sampled.

5.2.4 Sample size

The subject of sample size has continued to be a topic of debate in qualitative research, with the recurring question; 'how many sample sizes are enough?' Edwards and Holland (2013) however discovered that the guidance offered by some authors regarding this subject, hinges on the nature and purpose of the research. They further added that practical issues such as the time and finances available and data saturation should be considered.

Braun and Clarke (2013) proposed the use of six to ten interviews for small projects, ten to twenty interviews for medium projects, twenty or more interviews for larger projects. Similarly, Wilmot (2005) suggested that for qualitative investigation, one might expect to achieve between twenty and fifty interviews for a one-to-one investigation and in the range of sixty to hundred participants for a group interview, depending on the research question. Morse (1994) also recommended that qualitative researchers use at least six participants in investigations where the goal is to understand the essence of experience. She also recommended thirty to fifty interviews and/or observations for ethnographies and grounded theory research, while approximately 100–200 units of observation were suggested for qualitative ethological studies. Nevertheless, Onwuegbuzie and Leech (2007) argued that though these guidelines are helpful, most authors do not state how they arrived at the various proposed estimates.

Data saturation has also been discussed as consideration related to qualitative sample size (Mason, 2010). Silverman (2006) described *saturation* as a point where the information that is being shared with the researcher becomes repetitive, to the degree that the researcher can be reasonably confident that the inclusion of additional participants, within the current

sample is unlikely to produce any new ideas. To determine the ideal sample size required for saturation to occur, Guest, Bunce and Johnson (2006) conducted a study about social desirability bias and accuracy of self-reported behaviour in health research among women from two West African countries (at six different sites). They documented that their study yielded thematic saturation within the first twelve interviews. However, Davis, Gallardo and Lachlan (2010) highlighted that this may or may not hold for other dissimilar studies. Fox (2006) asserted that it is feasible that after interviewing three people in a setting, all the subsequent data generated is repetition, where the same points emerge time and time again. Patton (2002) concluded that there are no rules concerning sample size in qualitative analysis. Adding that it depends on the objectives of the study, what's at stake, what will be useful and what can be completed with the available time and resources.

Accordingly, twenty-four self-referred service users based on purposive maximum variation sampling were interviewed from the three selected secondary healthcare facilities (Table 2 in Section 5.2.3 provided a breakdown of the number of participants), which is in tandem with the sample size suggested by Braun and Clarke (2013). This sample size was able to generate saturated information by providing understanding consistent with other related studies on this topic and there were also emergent contextual issues that were identified in the interview. Therefore, the data generated from the twenty-four self-referred service users was considered sufficient for the first phase of this study.

5.2.5 Interview schedule

The questions for the interview schedule were designed to generate information based on the objectives of the research. Thus, themes explored were based on the findings from the literatures, the theoretical concepts from the Andersen's model and the researchers experience.

Predisposition to self-refer

The Andersen's model refers to predisposing component as variables that exist prior to the start of the illness that describe the individual tendency to use services (Aday and Andersen, 1974). This includes the demographics (age, gender, education, occupation), social structure and health beliefs (Andersen, 1995). Andersen added that health beliefs are attitudes, values and knowledge people have about health and health services that might influence their use of the health services. Likewise, previous studies have also highlighted the influence of knowledge regarding the healthcare referral system to impact on healthcare self-referral (Abdi et al., 2015; Durrand et al., 2012; Rasoulynejad, 2007).

Thus, the first concept of the interview guide was framed around the predisposition of service users to self-refer. This was explored to understand if the knowledge of how the healthcare system operates plays a role in service users self-referring. Therefore, this study wanted to uncover if those who knew how the referral system operates still self-refer and why? Or if the ignorance of knowing how the healthcare system operates predisposes the service users to self-refer.

Thus, some examples of the questions that explore this concept included:

- From your understanding, can you tell me about the functions of the government owned primary healthcare facilities (small clinics)?
- Can you also tell me about the functions of the secondary healthcare facilities (general hospitals)?
- Which level of health facility (primary, secondary or tertiary) is supposed to be your first point of contact when you have any health problem? Why do you think the facility should be your first point of contact?

Enablers to self-refer

Andersen (1995) noted that personal and community enabling factors have to be present for utilisation to take place. Emphasising on the means individuals have available to them for the use of services and the attributes of the community in which the individual lives (Aday and Andersen, 1974). For example, Andersen (1995) mentioned issues such as insurance, travelling, access to regular source, ratios of health personnel, facilities to population, price of health services and waiting time that might be components that enable individuals to utilise health services. Similarly, related studies have highlighted some contextual issues such as equipment, access to healthcare, healthcare providers and expectations of the service users amongst others to be linked with healthcare self-referral (Beache and Guell, 2016; Kraaijvanger et al., 2015; Visser et al., 2015; Alyasin and Douglas, 2014; de Valk et al., 2014; Kulu-Glasgow et al., 1998). Therefore, this study tried to uncover specifically what the service users perceive to be linked with by-passing the PHC facilities, consequently presenting at the secondary health facilities as it applies to the Nigerian context. This also tried to elicit any past

experience with the PHC facility that might have prompted the service users to avoid their use. This has implications for their utilisation and the proper functioning of the healthcare referral system (Kahabuka et al., 2012).

Therefore, some of the questions to explore this concept were:

- Have you attended the PHC facility (small government clinic) in the past for any reason?

  -If no, is there any particular reason that made you avoid using them?

  -If yes, what was your experience using the facility/ services?
- In addition, for patients who have used the PHC facilities in the past; is there any reason that have prevented you from going back to the PHC facility for medical care?
- How did you know about the secondary healthcare facility you attended?
- What do you think about the services in the secondary healthcare facility?
- Why did you come directly to the secondary health facility (general hospital) and not to the primary healthcare facility?
- Can you tell me more about additional things that you think might make patients to come directly to the secondary healthcare facility (general hospital)? (Probing for the roles of opening hours, waiting time, transport, fees, healthcare providers, service provided if not mentioned)
- From your point of view as a service user what are the likely things that will encourage you and other service users to use the PHC facilities?

Need to self-refer

The third concept of the Andersen's initial model is the need for utilisation of health service which Andersen pointed out that the health service must consider. He noted that how people view their general health, functional state, whether or not they judge their problems to be of sufficient importance and magnitude to seek help (Andersen, 1995). Andersen placed importance on this factor by pointing out that this is the most immediate cause that might prompt the utilisation of health service (Aday and Andersen, 1974). For example, if a service user self-refer with symptoms, it is important to understand how they perceive this symptoms which has warranted them to present at the secondary health facility and not to the primary health facility.

Some of the questions to explore this concept were:

- What medical problem/condition brought you to the secondary healthcare facility (general hospital)?
- What was your thought about the problem/ what did you think was going on? (Probing for the perception of the seriousness of their condition)
- Did you think this problem would not be taken care of at the primary healthcare facilities? Why?

5.2.6 Qualitative pilot and lessons learnt

A pilot study was conducted among four participants (two service users and two healthcare providers) between 8th January 2015 and 3rd February 2015. The aim of the pilot was to test the questions in the interview schedule and subsequently review the questions if necessary.

In addition, since the researcher was a novice in the field of qualitative research, the pilot was an opportunity to boost his confidence prior to undertaking the main field work. Further details of the pilot and lessons learnt are provided in Section 5.3.6.

5.2.7 Recruitment procedure

The main qualitative data collection for both the service users and healthcare providers was carried out simultaneously within the same period (11th May 2015 to 21st June 2015). Based on the inclusion and exclusion criteria for participants, as listed in Section 5.2.3, the potential participants were invited to participate in this research. The researcher recruited participants from the record office of the secondary healthcare facility, which is the first place the patients present to in the secondary healthcare facility. Patients ordinarily obtain their folder at this point prior to seeing the doctor for consultation. Patients identified as potential participants were informed about the research and the information sheet regarding the research was given to them. The mobile phone numbers of the potential participants were also requested so that they could be contacted at a later time for confirmation of their interest to participate in the research. The researcher also noticed there were few patients who bypassed the record office to see the doctors directly. This was principally due to the service users knowing someone working in the healthcare facility or knew the doctor. Thus, the researcher liaised with the doctors to help present the information sheet and collect the phone number of any potential participant that was missed from the record office.

For those who agreed to participate in the research, after being contacted via their mobile phone, a suitable date and time was agreed upon for the interview to take place. The

interviews were conducted at different agreed locations such as the participant's residence, a location agreed by both the participants and the researcher and also within the secondary healthcare facilities.

All the interviews were conducted in English language. The interviews started by thanking the participants for agreeing to participate in the research. The researcher subsequently checked with the participants that they had gone through the information sheet and understood all the information provided. A summary of the research was again presented to the participants and they were encouraged to ask any questions before the commencement and recording of the interview. A consent form was then completed and signed by each participant (see Appendix 3). An interview schedule (see Appendix 8) was used to direct the questions during the interview. This was not a rigid template to be followed but rather, it helped to make sure the researcher covered the relevant areas that needed to be addressed during the interview. The interviews were tape recorded which ensured the verbatim transcription of the interview for the analysis that followed.

On completion of the interview, the participants were thanked for participating in the research. They were also made aware that in case they had further questions concerning the research, they could contact the researcher through the contact details provided on the information sheet. The average duration of the interviews was approximately 20 minutes. An incentive of 200 Naira (equivalent to 50 pence), mobile phone top up voucher was offered to service users as a token for their time, after participating in the research. This was done by confirming the specific mobile network the participants were using. The voucher number was sent directly to the participant's phone after the interview was completed.

5.3 Healthcare providers

5.3.1 Data collection

In the earlier sections on service users, the subject on qualitative data collection, sampling and sample size was examined and some of the rationales tend to overlap regarding the healthcare providers. Several of the advantages and shortcomings of FGD have been highlighted in Section 5.2.1. Therefore, taking this study into context, some of the factors did not favour the adoption of FGD for the healthcare providers. For example, the timing of the FGD will need to suit the different participants in a group, the location of the FGD should be easily accessible to all the participants, whilst the number of participants available in a group also needs to be considered (Braun and Clarke, 2013).

The healthcare provider participants for this study were the doctors in secondary healthcare facilities, while the nurses and community health workers were recruited from the PHC facilities. Taking into consideration the likelihood of potential participants working different shifts, the difficulty of getting a favourable time for them to participate in a FGD was envisaged; consequently, FGD was deemed to be inappropriate. Additionally, the healthcare providers' work force in the primary and secondary healthcare facilities are limited (National Human Resources for Health Strategic Plan, 2007). Thus, the difficultly anticipated in obtaining a representative number of healthcare providers for a FGD was also thought of. Therefore, the dynamics of conversation within the group that FGD builds on may not be appropriate with extremely few participants (Guest, Namey and Mitchell, 2013).

Consequently, this present study adopted an in-depth semi-structured interview based on the logistic ease anticipated in acquiring the healthcare providers to individually participate in this research, when compared with FGD. Furthermore, the topic being explored was a subject conversant to the healthcare providers, which makes it suitable for in-depth semi-structured interview (Bowling, 2009). An interview schedule was also developed to guide the interview among the healthcare providers. The questions asked took cognisance of findings from the literatures and the researcher's experiences (see Appendix 8B for details of the interview schedule for the healthcare providers).

5.3.2 Data analysis

Framework analysis was also employed in analysing the qualitative data collected from the healthcare providers' participants. This approach followed the five key stages (familiarisation with the data, identifying a thematic framework, indexing, charting and mapping, in addition to interpretation), as described in Section 5.2.2. However, the identification of thematic framework for the healthcare providers was allowed to develop from the healthcare providers account without the use of a priori framework.

5.3.3 Sampling technique

The healthcare provider participants were selected via a purposive sampling technique. Purposive sampling is one of the commonest non-probability sampling techniques in qualitative research (Guest, Namey and Mitchell 2013). In purposive sampling, the aim is to select a group of people with characteristics relevant to the study being carried out (Bowling, 2009). The target was to recruit healthcare providers who attend to patients at the PHC

facilities and secondary healthcare facilities. This was due to their potential knowledge of being conversant with the referral processes and challenges involved. Therefore, this included nurses and community health workers from the primary level facilities as they are the principal care providers at that level. If also available, doctors were to be included. Concerning the secondary healthcare facilities, the doctors were recruited because they were also the primary care providers at the GOPD. The inclusion and exclusion criteria for the healthcare providers are highlighted below. However, the participants purposively selected for this study proved appropriate, based on their knowledge and experience regarding the research subject which made sure rich and significant information were generated (Bowling, 2009).

Inclusion criteria:

- General hospital (secondary healthcare facilities): doctors in GOPD involved with consulting and referring patients.
- PHC facilities: doctors, nurses and community health workers involved with consulting and referring patients.

Exclusion criteria:

- General hospital (secondary healthcare facilities): nurses and community health workers in secondary healthcare facilities were excluded.
- PHC facilities: nurses and community health workers in PHC facilities who were not involved in the consultation and referral of patients were excluded.

5.3.4 Sample size

The argument on 'sample size' in qualitative research was presented in Section 5.2.4. This study therefore took into consideration, the sample sizes suggested by different authors (Braun and Clarke, 2013; Guest, Bunce and Johnson, 2006; Wilmot, 2005; Morse, 1994), related literatures and the issue of data saturation, to decide the appropriate sample size required for the healthcare provider participants.

Therefore, eighteen healthcare providers were interviewed based on the inclusion and exclusion criteria provided in Section 5.3.3. These included six doctors from the three selected secondary healthcare facilities, six nurses and six community health workers from the PHC facilities in the three selected local government areas (see Table 3 below for breakdown of participants).

Table 3: Breakdown of participants (healthcare provider) from the selected areas

Healthcare providers	Tafa	Lapai	Wushishi	Total participants
Doctors	2	2	2	6
Nurses	2	2	2	6
Community health workers	2	2	2	6
Total	6	6	6	18

Care was taken to guarantee that the sample size was not ambitiously large, which could make the analysis overwhelming and difficult (Ritchie et al., 2003). However, the sample size

of eighteen participants was a flexible sample size set by the researcher, while also considering the generation of saturated data. However, aside from the fact that the sample size was in tandem with the size proposed by Braun and Clarke (2013), for the in-depth interviews, saturated information was also generated. This was observed by the researcher at the final (third) recruitment site, which captured repetitive views being echoed among the participants. The data also highlighted similar themes from previous studies and brought to light contextual issues, as applied to the Nigerian healthcare system.

5.3.5 Interview schedule

Variations of the interview schedule was designed for use with the healthcare providers. The main difference in this alternative guide was that aside from trying to get a general understanding of the operation of the healthcare system from the healthcare providers, questions were framed in terms of extracting the presumed factors that the healthcare providers perceived to influence the service users to self-refer. Notably, there are limited studies among healthcare providers regarding healthcare self-referral. In addition, the Andersen's model is a service user model, nevertheless, concepts were borrowed from the Andersen's model and literatures to direct the questions as applicable to the aim and objectives of this research. Accordingly, questions were framed around the healthcare delivery system and service user's utilisation of the healthcare facilities.

Healthcare delivery system

Andersen (1995) noted that the types of services and access to the services impact on their utilisation. Also, as highlighted in the literatures from the perspective of the service users, the

understanding of the healthcare delivery system was noted to be lacking for some service users while for others despite this understanding, the service users still prefer to self-refer. Likewise, studies on healthcare providers have also highlighted the lack of understanding among service users regarding the use of healthcare services, thus part of the suggestion in this regard is the need to educate the patients concerning appropriate use of healthcare services and facilities to help them make more rational decisions (Durand et al., 2012). Thus, some of the questions included to understand the healthcare providers position regarding the operation of the healthcare system and the general services provided within their facilities were;

- How will you describe the functions of the different levels of Nigeria healthcare system? (The primary, secondary and tertiary levels)
- Which services are provided by your facility?
- What are the processes involved when referring a patient to another facility (higher or lower)
- What also happens when receiving a referral from another facility?
- What guidelines do you have in place in your facility on how your referrals should operate or are carried out? Are you aware of any national policy on how referral should be conducted? If yes, what does it outline? If no, what is your opinion on having one in place?

Service user's utilisation of healthcare facilities

Its been highlighted that bypassing of the PHC facilities is typically driven by issues such as patients' perception of superior quality of care and resource availability at the higher levels of care. Therefore, the willingness of the populations to use lower level facilities as a point of entry into the health system depends on the individual's perception of the quality of services likely to be received (Hensher et al., 2006; Barnum and Kutzin, 1993). Similarly, some studies have pointed out that most of the conditions seen in the referral facilities can be managed within the primary health facilities, so that overcrowding, and wastage of skilled manpower time and equipment can be avoided (Akande, 2004). Therefore, these questions seek to draw upon directly from the healthcare provider's experiences regarding how the use of the PHC facilities can be optimised, whereby self-referral is discouraged while also allowing the referral facilities to live up to their mandate. The questions also try to collate the factors implicated for self-referral from the lens of the healthcare providers. Thus, the questions included:

- What are your views about patients presenting directly to secondary health facilities without being referred?
- How can service users be encouraged to use the PHC facilities?
- How can the use of the secondary healthcare facilities be better regulated by ensuring the bypass of the primary healthcare facilities is at a minimum?
- From your perspective, can you tell me about some particular factors that may be responsible for patients/ service-users self-referring directly to the secondary health

facilities? Probing for the roles of opening hours, waiting time, transport, fees, healthcare providers if not mentioned.

- Can you tell me about the medical conditions frequently encountered in your facility?

5.3.6 Qualitative pilot and lessons learnt

- **Qualitative pilot**

As earlier stated in Section 5.2.6, the reasons for conducting a qualitative pilot were to test the questions included in the interview schedule, then review the interview schedule if necessary and to also boost the researcher's confidence in conducting qualitative interviews.

A pilot interview was conducted with two healthcare providers (medical doctors) residing in the UK, who have a Nigerian background and have had the experience of working in a secondary healthcare facility in Nigeria. The service users' interview schedule was also piloted among two individuals of Nigerian descent, who have had the opportunity of using the Nigerian healthcare system. All the participants for the pilot study were known to the researcher. Nevertheless, the experiences of the different participants regarding the research were relevant in relation to piloting the schedule.

- **Lessons learnt**

As a new researcher in the qualitative field, the researcher found the pilot exceedingly useful. This helped boost the researcher's confidence prior to visiting the main field for the data collection. Attributes, such as composure while interviewing participants, keeping eye contact

with the interviewee and being able to direct the path of the discussion were cultivated during the pilot study.

It was difficult to get some participants to honour their agreement on the time scheduled for the pilot interview. This was especially the case for the healthcare providers' aspect of the interview. The interviews were rescheduled several times either due to the participant forgetting about the agreement made for the interview or due to the participant having had a busy day. This experience subsequently helped the researcher to plan for the main field work, seeing as participants needed frequent reminders.

A further lesson learnt from the pilot was the review of the information sheet. It was highlighted by one of the pilot participants after going through the participant information sheet, that he was not comfortable with the term 'investigator' used on the initial information sheet. This necessitated reviewing the information sheet and replacing the term 'investigator' with 'researcher'.

For both the service users and healthcare providers, it was noticed that some of the questions generated repetitive answers. Thus, some questions were removed while others were reviewed. For example, one of the piloted questions for the service users asked, "How would you describe the functions of the different levels of the healthcare system (small clinics and large hospitals)", while another question asked, "Can you tell me about the services provided by the small clinics and large hospitals (primary and referral levels of care)?" It was noticed that the two questions generated similar responses, so it was decided that the questions were merged and rephrased to ask participants, "From your understanding, can you tell me about

the functions of the government owned primary healthcare facilities (small clinics)?" Followed by an extra question, "Can you also tell me about the functions of the secondary healthcare facilities?" Accordingly, this is in line with Turner's (2010) view, who noted that, in addition to other benefits of the pilot study, it is meant to assist the researcher with the refinement of the research questions.

Despite the role played by the pilot study, the data was not used to inform the content of this thesis. However, the semi-structured interview schedule proved suitable as participants expressed their opinion freely and rich insight was gained.

5.3.7 Recruitment procedure

The strategies applied with regards to recruiting the doctors from the secondary healthcare facilities and the nurses and community health workers from the PHC facilities are presented below. Each of the interviews with the healthcare providers were conducted at the premises of their healthcare facilities and were all in English language.

Healthcare providers in secondary healthcare facilities: Doctors

The doctors were sampled from the same three selected secondary healthcare facilities as the service users. The doctors were approached at the GOPD of the respective selected facilities to seek their participation. The purpose of the research was explained to the potential participants and for those who displayed an interest in participating; the information sheet was also given to them. Participants were contacted via their mobile numbers to arrange a date and time suitable for the interviews to take place. However, it was still difficult to get some participants to honour their appointments, due to their busy

schedules. Therefore, appointments were rescheduled several times for a few participants. When participants finally honoured their appointments, the interview process started with thanking the participants for agreeing to take part in the research and making sure they had read the participants' information sheet. The participants were assured of the confidentiality of the information they would provide and made aware that their participation was voluntary. They were also given the opportunity to ask any question they wanted or any clarification they needed concerning the research. The consent form was then completed and signed by the participants.

Like the service users, an interview schedule was used to guide the interview (See Appendix 8B). The interviews were also tape recorded, lasting an average duration of approximately 20 minutes. At the end of the interview, the researcher thanked participants for their time. They were also informed that if they had further questions or needed further clarification, they could contact the researcher via the email or phone numbers provided on the information sheet. No incentive was offered to the healthcare providers as it was taken for granted that the healthcare providers will have some level of interest in the research, particularly in the research findings.

Healthcare providers in primary healthcare facilities: Nurses and community health workers

For the healthcare providers in the PHC facilities, the researcher spoke with the directors of the PHC facilities in the different LGA's to assist with the recruitment. This is in line with the suggestion made by Braun and Clarke (2013), related to identifying key individuals well connected with potential participants that can help one with recruitment. The potential participants (nurses and community health workers) were recruited based on the inclusion

and exclusion criteria presented in Section 5.3.3. The information sheets were given to the directors for onward distribution to the potential participants. The directors were then contacted at a later date to confirm and obtain the contact details of the potential participants interested in participating in the research. The researcher subsequently contacted the potential participants to arrange a suitable date and time for the interviews. On the day of the interview, the processes followed a similar pattern, as described earlier, for the healthcare providers in the secondary health facilities.

5.4 Reflexivity and reliability of the data collection

- **Reflexivity**

In qualitative research, the subjectivity of the researcher and those being studied are viewed as part of the research process. Therefore, the researcher's reflections on their actions and observations are important. Hence, the concept of reflexivity acknowledges the input of the researchers in actively co-constructing the situation which they want to study (Flick, 2009). This entails examining oneself as a researcher by examining how one's assumption and preconceptions affect the research decisions. Additionally, reflexivity helps the researcher examine their relationship with the respondent, and how these relationship dynamics affected the findings (Hsiung, 2010). Ravitch and Riggan (2012) pointed out that one's personal background, professional role and social location need to be viewed as methodological considerations worthy of critical attention in research. Therefore, interpreting qualitative data requires reflection on the entire research context. This involves making the research process itself a focus of inquiry, laying open pre-conceptions and

becoming aware of situational dynamics in which the interviewer and respondent are jointly involved in knowledge production (Hsiung, 2010).

The author of this research has experience of working as a medical doctor in Nigeria and the UK. Having trained in Nigeria and worked in a tertiary and secondary healthcare facilities in Nigeria with broad roles related to attending to patients at the General Out-Patient Department (GOPD), engaging in ward rounds, conducting minor operative procedures and assisting in major operations. However, based on his interest in the field of public health, this subsequently necessitated the researcher to acquire a Master's degree in public health.

The researcher's previous role as a healthcare provider in the Nigeria healthcare system contributed in provoking the study of this topic based on previous experiences of having to attend to countless patients who self-refer themselves to the GOPD of a secondary healthcare facility. Thus, the researcher wanted to understand the reasons behind service user's choice of the secondary healthcare facilities despite the availability of PHC facilities which were likely to be more proximal to the patients. Therefore, the answers to this research problem was envisaged to be best addressed by the service users who were primarily involved in the use of the facilities and the healthcare providers involved in rendering care to the service users. As a healthcare provider with experience in the local setting of this research, it is worth noting that the researcher also has views concerning the research problem. However, it was vital for the researcher to be cautious, non-judgmental and not seen to be imposing his views on the opinions of the research participants. Therefore, the researcher went into the field as a novice, which ensured that the semi-structured questions designed were not leading

questions but rather open questions with prompts that made the participants discuss their views without restrictions.

The researcher's background as a healthcare provider appeared to have influenced the research process in a positive way, in terms of gaining access to the healthcare facilities and interview with the healthcare providers. The researcher introduced himself to the directors of the different healthcare facilities as a medical doctor who is pursuing a PhD degree. It was however, important for the researcher to be mindful of the potential perceived and actual power differences with the service users. Therefore, to minimise this bias, it was made clear to the service users that the researcher was an independent research student carrying out the research for academic reasons. This helped to avoid any feeling of coercion on the part of the service users to participate in the research.

However, one of the challenges experienced was the dual role of being a researcher and a healthcare provider. For example, when some of the service users talked about their understanding of healthcare delivery in Nigeria, there was a drive as a healthcare provider to educate them on the function of the different levels of healthcare facilities when their opinions were contrary, while conversely as a researcher my role was to listen and allow the participants to freely express their views. Thus, the researcher's actions were in favour of the latter. Similarly, on further reflection one of the concerns with the healthcare providers' interviews was the likelihood of the healthcare providers assuming that being a healthcare provider myself, the researcher was aware of several of the factors associated with healthcare

self-referral in the Nigerian context. Therefore, some of the factors might not have been voiced by the healthcare providers.

The methodology of this research was directed by the research problem. The qualitative method was new to the researcher, having only adopted a systematic literature review for his dissertation while studying for his Master's degree. As a result, the researcher had the opportunity to receive extensive training in qualitative research, which was important in the conduct and analysis of this research. This training was provided by the Institute for Health Research and the postgraduate school of the University of Bedfordshire, UK.

- **Reliability of the data collection**

Lincoln and Guba (1985) highlighted the importance of the reliability of a research study which is anchored on the credibility, transferability, conformability and dependability of the data collected. Likewise, Creswell (1998) noted eight verification procedures in qualitative research frequently discussed in the literatures; specifically, 1) prolonged engagement and persistent observation in the field; 2) triangulation; 3) peer review or debriefing; 4) deviant case analysis; 5) clarifying researcher bias from the outset of the study; 6) in member check; 7) rich and thick description; and 8) external audits. Creswell (1998) advised that the eight procedures should be viewed as a whole; nevertheless, he recommended that qualitative researchers should engage in at least two of these procedures in a given qualitative study. Therefore, to ensure the reliability of this study, some of the above strategies were addressed in this study, as presented below;

1) Peer review or debriefing: Creswell (1998) described this as an individual who provides checks and keeps the researcher honest by asking questions and moreover, by listening to the researcher. In line with this, throughout this research period the researcher had a series of meetings with his supervisors who scrutinised all aspects of the research, including the methodology and findings. This required the supervisors seeking clarifications, raising questions and critiquing the different aspects of the study that the researcher had to address.

2) In member check: here the researcher solicits participants' views of the credibility of the findings and interpretations (Creswell, 1998). In this case, seven participants (one doctor, one nurse, one community health worker, one male and female service user of forty years and above and one male and female service user between eighteen to thirty-nine years) had a copy of their transcript and the summary of the analysis conveyed to them via their emails. This was for each of them to confirm if the findings aligned with the views they presented during the interviews. Responses were received from those contacted, except from one of the male service user (who was in the category of forty years and above). Despite several follow up with the participant, no response was received. However, the available responses from the remaining six participants indicated that their views were represented in the findings.

3) Rich and thick description of the participants or setting under study: the researcher ensured this was explicit by providing a detail description of the research setting and stating the inclusion and exclusion criteria of the participants. By doing so, it allows readers to be able to make decisions on the transferability of the findings (Creswell, 1998).

4) External audits: the researcher guaranteed that the data were collected in a transparent manner to allow the accuracy to be assessed. For example, interviews were audio-recorded and transcribed in an anonymised form. Furthermore, the framework analysis also ensured a traceable, clear and systematic way of analysing and presenting findings.

5.5 Ethical Consideration

Ethical approval was granted for the first phase of this study by the Institute of Health Research Ethical Committee (IHREC) (Ref. number: IHREC464), University of Bedfordshire (see Appendix 4) and the National Health Research Ethical Committee (NHREC) in Nigeria (Ref. number: NHREC/01/01/2007) (see Appendix 5). Additionally, approval was sought from the Niger State Hospital Management Board (see Appendix 6A-6C) who kindly granted the researcher access to any of their facilities for the duration of the research.

The researcher made sure the study was ethically grounded during the field work and data management process. One of the ethical challenges of this research was understanding that very sick patients will be encountered and being in a vulnerable state already it was appropriate to exclude them and those who were too weak to communicate due to their ill health. This was to prevent increasing their level of discomfort. Thus, generally, participants were made to understand that their participation was voluntary, and the research was for academic purpose, hence refusal to participate in the research was not going to affect the usual care they are entitled to from the facilities. This information was also highlighted in the information sheet provided to the participants. To also avoid, any power imbalance, as the researcher has background as a healthcare provider, it was appropriate for the researcher to introduced himself to the service users as a student who was carrying out the research for

academic purpose. By so doing, this prevented the service users from feeling coaxed or under undue pressure to participate in the research. Hence, some participants who were later contacted after initially showing interest in the research freely declined to participate. However, with the healthcare providers, the researcher also made them aware that he had a background as a healthcare provider which proved receptive for the researcher and issues were discussed freely without any sense of power imbalance.

At the time of the interview, the research was summarised to the participants and it was checked that they understood all the information on the information sheet (see Appendix 1 and 2). They were also encouraged to ask questions. Written consent was taken from every participant on the day of the interview (see Appendix 3). The digitally recorded interviews were transferred into a password protected flash drive. Each interview and transcript were labelled with a pseudonym and kept separately in a secure place. Participants were also informed that if they subsequently had any further queries they should contact the researcher via the phone numbers or emails provided on the information sheet. No adverse effect was anticipated from this study; however psychological support was negotiated with the doctors in the secondary healthcare facility for potential participants, if the need arose. Nevertheless, no ethical issues arouse during the data collection and analysis.

5.6 Summary

The mixed method design for this study addressed Objective 1 by employing a qualitative approach, where in-depth semi-structured interview was used to adequately explore the concept of the study. A purposive non-probability sampling technique was adopted for the selection of the participants (service users and healthcare providers), which align with

qualitative sampling technique. The sample size selection was guided by the objective of the study. In addition, consideration was also given to the need for data saturation; this was achieved with the information generated from the different sample sizes of the two groups (service users and healthcare providers) of participants.

The interview schedules were designed with the aim of addressing the research objectives, thus, questions generated were guided by the literatures and the researcher's experiences. A qualitative pilot study was subsequently conducted to test the interview schedule and possibly address other practical issues. Lessons were learnt from the pilot, whereby the research participants' information sheet was amended, along with a few of the questions in the interview schedule were also amended. These also boosted the researcher's personal confidence prior to the main field work.

Participation in this research was primarily voluntary. Participants were assured of their anonymity and keeping their information confidential, and were subsequently adhered to. Framework analysis was used to analyse the data collected. Additionally, Nvivo software proved exceedingly useful in organising and managing the data that were collected. The next chapter therefore presents the findings and discussions regarding the objective of this study.

6.0 Chapter Six: Findings and Discussion for Objective 1

6.1 Introduction

This chapter presents the findings related to the first objective of this research. The discussion of the findings regarding the literatures is also presented in subsequent sections in this chapter.

Thus, Objective 1 was;

- To identify the factors that influence service users' self-referral to secondary healthcare facilities by exploring the perceptions and experiences of the service users and healthcare providers.

6.2 Service users' findings

The presentation of the findings for this objective was driven by the identified themes. The identified themes were grouped based on the predisposing, enabling and need components of Andersen's initial healthcare utilisation model, which served as the parent themes for the findings. Accordingly, recommendations made by Ritchie and Lewis (2003) were adhered to, by staying close to the participant's accounts and language as much as possible, while later introducing the theoretical concepts as they matched the data.

The following sections present the socio-demographic characteristics of the service user's participants and the identified themes.

6.2.1 Socio-demographic characteristics of participants (service users)

A total of twenty-four (n=24) participants were interviewed. Eight self-referred service users were interviewed from each of the three selected secondary healthcare facilities. Using purposive maximum variation sampling technique, two males and two females aged 40 and above were interviewed and two males and two females between 18-39 years were interviewed in each of the three facilities.

A diverse group of participants were captured with their age group ranging between 18 to 58 years. Most of the participants (twenty participants) were married. The level of education of the participants also reflected the diverse nature of the participants. Thirteen participants reported having a tertiary education, ranging from a National Diploma to a degree. Nine participants reported having a secondary school qualification while one participant had attended only primary school. The final participant reported having had no formal education. Notably the participants recruited for this study were those that could speak English; hence, the high numbers of participants who had the opportunity of gaining a formal education, at least up to primary level.

The participants also reported having different occupations. Nine of the participants were civil servants (government employed), nine were unemployed, these included students, housewives or individual's in search of a job. While six of the participants were non-government employed (they were farmers, taxi driver, plumber or engaged in other personal business). Table 4 below presents the socio-demographic characteristics of the self-referred service users who participated in the interview.

Table 4: Socio-demographic characteristics of participants (service users)

Identification no.	Age	Gender (M=Male; F=Female)	Occupation	Educational level	Marital status
SRSU1	43	F	Government employed	Tertiary	Single
SRSU2	45	M	Government employed	Tertiary	Married
SRSU3	42	F	Government employed	Secondary	Married
SRSU4	29	M	Non-government employed	Secondary	Married
SRSU5	32	M	Non-government employed	Secondary	Married
SRSU6	33	F	Unemployed	Tertiary	Married
SRSU7	41	M	Government employed	Tertiary	Married
SRSU8	20	F	Unemployed	Secondary	Single
SRSU9	29	M	Unemployed	Secondary	Single
SRSU10	41	M	Government employed	Tertiary	Married
SRSU11	42	F	Government employed	Tertiary	Married
SRSU12	41	F	Non-government employed	Tertiary	Married
SRSU13	32	F	Unemployed	Tertiary	Married
SRSU14	21	F	Unemployed	Secondary	Married
SRSU15	39	F	Government employed	Tertiary	Married
SRSU16	45	M	Non-government employed	No formal education	Married
SRSU17	58	M	Non-government employed	Secondary	Married
SRSU18	30	M	Unemployed	Tertiary	Married
SRSU19	41	F	Unemployed	Secondary	Married
SRSU20	39	M	Government employed	Tertiary	Married
SRSU21	54	M	Unemployed	Secondary	Married
SRSU22	50	F	Non-government employed	Primary	Married
SRSU23	23	F	Unemployed	Tertiary	Single
SRSU24	30	F	Government employed	Tertiary	Married

6.2.2 Predisposition to self-refer

Andersen described the predisposition to use healthcare services as a function of socio-cultural characteristics that existed prior to the patient falling ill, such as social structure, health belief and demographics. Andersen also indicated that part of the health beliefs are

the knowledge people have concerning the health system (Andersen, 1995). Thus, the three themes identified below sit within Andersen's component of predisposing factors (see Appendix 11A for the charting of the themes).

1. The role of the PHC facility
2. The role of the secondary healthcare facility (general hospital)
3. Perceived first healthcare facility to visit

6.2.2.1 The role of the PHC facility

Participants spoke of their understanding of the role of PHC facilities, which in turn revealed the diverse knowledge that participants held concerning these facilities.

Close to the people

Six participants described the function of the PHC facility as facilities that are close (in terms of proximity) to the people in the community and therefore, much easier for people to reach. Five of these participants had a tertiary level of education and five were government employees (civil servants).

> *"They are the closest stage that eh, people can run to at any time, because they are located close to them".* *SRSU13, P1, L13-15*

> *"The primary healthcare centre is actually brought closer to the people".* *SRSU1, P1, L11-12*

Despite the opinion that the PHC facilities are designed to be close to the people they did not feel the need to use them. One of the participants also added that the PHC facilities are

designed primarily for the rural populace.

> "*I can say they are provision of medical services channel to rural people".*
>
> *SRSU15, P1, L10-12*

Though these participants have an understanding that the facilities are meant to be within the reach of the service users, this understanding however, does not stop service users bypassing the PHC facilities to present at the secondary healthcare facilities that may be miles away.

First aid measures (Basic health needs)

Ten participants, seven with a tertiary level of education, the majority (eight) married and of varying ages ranging from 23 to 54 years, spoke of the PHC facilities as being designed to only offer basic health needs, in addition to educating and enlightening people with regards to health-related issues.

> *"They attend outpatients, that is one, they provide health, basic health needs like sanitation, advice on contaminated things (…), affecting the community".* *SRSU21, P1, L10-14*

Also highlighted, was that based on the level of amenities available at the PHC facilities, they are viewed as only rendering first aid measures.

> *"Is just like a temporary erm first aid measure from the way I see it, because of the level of facilities and other factors that are involved. So, to me, I just feel its set up for basic erm everyday minor ailments but nothing serious".* *SRSU11, P1, L11-16*

Specific and occasional services

Several (fourteen) participants cutting across the different socio-demographics noted that the role of the PHC facilities were centred on specific services or just merely offering occasional services.

> *"They only function on ah, is when they have a special project to carry out, like eh trying to distribute mosquito nets, they are going out to vaccinate children (…). Aside from that, just here, they don't do any other thing".* *SRSU1, P4, L210-218*

The above quotation from one of the participants pointed out that the role of PHC facilities only comes to light when there is a particular event such as immunisations and the distribution of mosquito nets. Notwithstanding these services, the participant felt that the PHC facilities had no other function.

In addition to the perception of the PHC facilities rendering childhood related services, for instance immunisation, other participants also believed that the PHC facilities are meant for pregnant women, to render antenatal care and delivery.

> *"The way I look at it, I believe may be their own. They take care of pregnant women and anything about women".* *SRSU4, P1, L29-32*

> *"The work they do there* ***(PHC facility)****, like children immunisation, they give children immunisation".* *SRSU22, P1, L19-24*

Child immunisation, child birth and antenatal care appeared to be the common roles associated with PHC facilities by the participants.

Alternative to the secondary healthcare facility

Five participants from different socio-demographics perceived the role of the PHC facility as an alternative option when one is unable to access the secondary healthcare facilities.

> *"When you don't have the (...) secondary healthcare, then you can go to the primary healthcare. But when there is secondary healthcare, I prefer going to the secondary healthcare".* *SRSU6, P2, L71-76*

> *"So, when we are sick we don't go there **(PHC facility)**. We come here **(general hospital)** direct, straight, if you know you have not been treated at the appropriate time that you want, then you shift to that place **(PHC facility)**".* *SRSU17, P2-3, L94-98*

The above quotations illustrate the preference of the participants for the secondary healthcare facilities. The participants however, noted that when they are unable to access secondary healthcare facilities due to the lack of the said facilities where they live, overcrowding of the secondary healthcare facilities or when they must wait for a long time, only then do the PHC facility becomes an option to seek healthcare from.

Participants also suggested forums, such as using radio and TV adverts to create awareness and enlighten the populace. They believed this medium may support the understanding of service users to use the PHC facilities, instead of self-referring themselves.

> *"They can promote the place **(PHC facility)** by also doing some minor advert (…). They can advertise on the TV, radio, local languages too and others".*
>
> *SRSU11, P6-7, L294-295, L297-298*

"Almost every society is an enlightened society now, so they need to begin to look at it that people are going above that level. People listen to the radio, they watch TV, they have a set, they can browse, they can see many things, so it's no longer that thing you think of. So, the concept of primary healthcare needs to be redefined and reassessed and think of what is needed to be done, what needs to be done about the provider".

SRSU7, P11-12, L541-551

Theme summary

Varying socio-demographics (educational level, occupation, gender, age and marital status) regarding the service user participants, who spoke on various aspects of this theme were captured. The service users' participants account on the role of the PHC facilities demonstrated a different level of understanding concerning the facility. Participants identified the PHC facilities as primarily for first aid measures; some noted they were meant to be close to people, while others believed that the facilities were for specific groups of people or for the rural population. Furthermore, a few participants felt the PHC facilities were a last resort when they were unable to access a higher level of care. Therefore, the different perception of the participants concerning the facility may have prompted bypassing the facility to a higher level of care. Conspicuously, some of the characteristics of the socio-demographics, for instance educational levels were ascertained to be more prominent when respondents spoke about some aspects of the theme, such as highlighting the PHC facilities as rendering first aid measures and the need for the PHC facilities to be close to where the population reside.

6.2.2.2 The role of the secondary healthcare facility (general hospital)

Participants also gave their different views regarding their understanding of the role of the secondary healthcare facilities.

Wider range of medical services

Seventeen participants viewed the role of the secondary facilities as providing a wider range of medical services in comparison to the PHC facilities. These participants had diverse socio-demographic characteristics; however, ten had a tertiary level of education.

Several of the participants noted that in addition to pregnant women being carter for at the secondary healthcare facilities, investigations such as blood tests, scanning and surgeries can be conducted within the secondary healthcare facilities.

> *"There is equipment, (…) more equipment in the general hospital than in clinic **(PHC facility)**, because in the clinic there are no labs. Here **(secondary health facility)** they will take your blood test and other various eh problems like that".* *SRSU18, P2, L49-54*

> *"I think those ones **(secondary health facilities)** are a bit broader and they have erm more, they have a wider scope, scope of erm attending to patients and other things, other ailments and all those kinds of things".* *SRSU11, P1, L20-24*

In addition, one of the participant's spoke of the secondary healthcare facility as a place she had developed a sense of attachment for, hence, finding it difficult to use any other facility.

> *"That hospital **(primary healthcare facility)** I am not used to it, I am used to this. The, my normal reason is that I am just used to this general hospital".* *SRSU14, P4, L160-163*

Perceived as a process

Four participants who were all female, aged between 21-33 years viewed the role of the secondary healthcare facilities as a series of steps or actions taken by them and the healthcare providers in the management of their medical conditions. They described the secondary health facility as a place where they get detailed scrutiny of their symptoms to reach a diagnosis and subsequently appropriate management of their medical conditions.

> *"They have many functions, in general hospitals like when you come to general hospital before you see the doctor, you will be asked to collect your card, that is your file, your record. Before that you will go and, I mean after that you will go and submit it to the nurses, who then will take it to the doctors. From there you are advised to go and see the doctor. When you go to see the doctor, you have to explain what you are feeling. They will ask you certain questions, may be what you were feeling about 3 months ago or somethings like that. Then, then they will now refer you to go and do the test. From the test you now come back to the doctors before they will put you on some certain drugs or they will know what to do about your issue." SRSU6, P1, L23-40*

Referral facility

The secondary healthcare facility was perceived as a referral facility by three participants. Two of these participants had a tertiary level of education, while the third participant had a secondary level qualification. The participants recognised that prior to attending the secondary healthcare facility, one needs to be referred from the primary level of care.

> *"The functions of eh the general hospital is that ah, if maybe you go to primary healthcare, if they treat you and you are not ok, they can be able to transfer you to the general hospital".*
>
> *SRSU10, P1, L25-29*

*"General hospital is designed for accepting patients from the community to the general hospital. Then after finishing treating the patient from the general hospital then you refer back to them **(PHC facility)** to continue with the minor things".* *SRSU21, P1, L36-41*

Furthermore, one of the participants (SRSU21) also noted that, as part of the role of the secondary healthcare facilities, patients need to be referred back to the primary level of care after being managed at the secondary healthcare level, which is referred to as 'back referral'.

Theme summary

Participants opinions about the secondary healthcare facilities also varied, while some viewed them as referral facilities, others viewed them as providing extensive medical services. In addition, several participants described the secondary level of care as a place that includes several processes before a diagnosis is made. Likewise, with this theme, participants' level of education appeared to be pronounced in some respects, such as when talking about the secondary level of care as a referral facility and the perception that the secondary level of care offers a wider range of medical services.

6.2.2.3 First healthcare facility to visit

Participants' understanding was sought on which facility they perceived as the first place to visit when having health concerns. Their position varied between the primary and secondary healthcare facilities.

Some participants noted that the PHC facility should be the first healthcare facility to present to when sick. No predilection in terms of the socio-demographics was identified among participants with this view.

> *"Under ideal conditions. Ideal. What I mean by ideal is that, if the healthcare is okay, and primary care is well established. I think primary care is closer than the general hospital, so, I think we are supposed to go to erm the primary healthcare before the general hospital, but right now they can't do it that way".* *SRSU13, P1-2, L41-48*

> *"The primary healthcare is supposed to be the first but eh as it stands, I cannot tell you I go to primary health centre that is the truth".* *SRSU1, P2, L65-68*

Despite some of the participants understanding that the first facilities to seek medical care from are the PHC facilities, they however reiterated that the PHC facility is not a place they will attend for healthcare.

For other participants the secondary healthcare facility was perceived as their first point of call for healthcare. Similarly, this view cut across participants of different socio-demographics. Notably, from the account of some participants', the availability of healthcare providers and the services rendered at the secondary healthcare facilities made them a preferable place to search for care as the first point of call.

> *"For me, I think the secondary (…) because there are more hands there. The primary you basically see maybe one or two people. The place is always empty".*
>
> *SRSU11, P1, L43; P2, L49-56*

Theme summary

Participants understanding of the facility to first present to when sick was divided between the primary and secondary healthcare facility, which may also play a role in patients' decisions on where to seek healthcare. Despite the understanding by some participants that the PHC facilities were supposed to be the first facility to seek healthcare from, they still circumvented those facilities. For others, they felt that the secondary level of care was the first facility to present to.

6.2.3 Enablers to self-refer

Andersen described this component of his model as the factors that impede or help aid the utilisation of healthcare, which entails the logistical aspects of obtaining care. This includes personal and community aspects taking into cognisance factors such as access to health services, health insurance, a regular source of care, travel, the extent and quality of social relationships, available health personnel, facilities and waiting time (Andersen, 1995). The themes that emerged from the interviews that fits within Andersen's component of enabling factors of patients self-referring are listed below (see Appendix 11B for charting of the themes).

1. Role of healthcare providers
2. Role of equipment or facilities
3. Advice from friends, relatives and others
4. Expectations of service users
5. Access to the healthcare facility

6. Policies

6.2.3.1 Role of healthcare providers

Most participants spoke of different dimensions on how the healthcare providers impact on patients' decisions to seek care at the referral facilities.

Lack of staff and the level of knowledge of the staff at the PHC facility

Most of the participants (fifteen) highlighted the shortage of healthcare providers at the primary level of care. Nine of the participants had a tertiary level of education, and most were married (thirteen) and were between the ages of 20-54.

> *"It's either they are understaffed, or they have staff that are not trained".*
>
> *SRSU1, P2, L70-72*

In addition to the shortage of healthcare providers reported in the PHC facilities, participants also noted that the staff in the PHC facilities lacked the required medical knowledge to care for them. Accordingly, some participants clearly pointed out that the cadre of healthcare providers in the PHC facilities are principally community healthcare workers and nurses. Thus, voicing their lack of confidence with the expertise of this group of healthcare providers.

> *"In that of the primary healthcare, you meet the nursing officers and then may be some of the, these health, community health workers attending to the patient of which I can say they have little knowledge about certain eh, I mean medicines. That's the reason why I prefer going to the general hospital".* *SRSU15, P2, L56-63*

"The awareness that the primary healthcare services erm are limited by certain factors. One, the educational qualification of the healthcare providers is a key thing".

SRSU7, P6, L250-254

The excerpt above from one of the participants (SRSU7TAF) who has a tertiary level of education and is also a government employee, clearly noted that there is increased awareness among service users on the different healthcare providers available at the different facilities. Therefore, participants seem to differentiate between the medical doctors, nurses and community health workers. Based on this, they judge the competence of the different groups of healthcare providers, which in turn influences their decision on where to seek healthcare.

Presence of doctors at secondary facility

The perception by participants that they are likely to be seen by doctors at the secondary healthcare facilities was spoken of by fourteen participants. This perception was spread across the various socio-demographics provided; however, thirteen were married.

"The reason is that in the general hospital you meet a doctor, a doctor specialised in a particular field of disease". *SRSU15, P2, 53-55*

"The general hospital to me, I prefer the general hospital than that one ***(PHC facility)****, because at the general hospital, you see a doctor. He will check your body. You will know that this is doctor".* *SRSU22, P1, 28-31*

The lack of doctors at the PHC facilities was also a concern for quite a few of the participants who noted the likelihood of getting a mistaken diagnosis if they presented to the PHC facilities.

*"I prefer to go direct **(to secondary healthcare)** in order not to waste my life because had it been its primary healthcare, yesterday, they would have just said I should go for urine test, as may be its infection."* *SRSU3, P4, 190-194*

Additionally, as quoted below, one of the participants (SRSU21), a 54-year-old retired community health worker (unemployed), felt that he may not be taken seriously if he presented to the PHC facility. He emphasised that he may be told his ailment was age related which is contrary to the perception of what he thought was wrong with him.

*"I didn't even want to attend there **(PHC facility)** because they will say its old age, whereby I am having what I am. I am feeling something else".* *SRSU21, P4, 175-177*

<u>*Access to trained and qualified staff*</u>

Accordingly, fifteen participants of whom ten had a tertiary level of education suggested the need to have qualified staff at the PHC facilities. They however, placed emphasis on the need to have doctors in those facilities.

"As I have rightly said another factor is the issue of qualified doctors should be employed in those primary healthcare (…) had it been we have a special, a specialist eh eh doctor here, in this primary healthcare here. No need for me going to that, going to that general hospital." *SRSU5, P7, L314-316, L321-324*

"They have to put doctors before I will be able to present". *SRSU6, P7, L334-335*

In addition, several participants also suggested the need for effective collaboration between the different levels of healthcare facilities. They remarked that with such connections in place,

the patients' confidence may be gained to utilise the PHC facilities.

> *"They know very well that if you know you cannot handle this case, either you invite someone down from the tertiary or you move the patient down to the tertiary for proper medical attention. People will just come, once they know you know what you are doing and then the sector is organised. You understand me now? In a way that there is this inter relationship between the primary, secondary and tertiary. To me there is no inter relationship, you just move down on your own".* *SRSU1, P6-7, L345-356*

Aside from prompt referral from the primary level of care to a higher level of care, another suggested collaborative effort was for the PHC facilities to be able to call an expert down to the PHC facility when the need arises.

Theme summary

Most service user participants felt the need to be seen by a doctor influenced their decision of bypassing the PHC facilities. They mentioned that the doctors are more competent and readily available at the secondary healthcare facilities, as compared to the PHC facilities. Furthermore, it was also noted that, majority of the service user participants with a higher level of education also questioned the knowledge of the healthcare providers in the PHC facilities, who are primarily nurses and community healthcare workers.

6.2.3.2 Role of equipment or facilities

The facilities available at either the primary or secondary healthcare facilities were also perceived by participants to impact on their decisions to self-refer to secondary healthcare facilities.

Absence of equipment or facilities at the PHC facilities

The idea that the PHC facilities lack some basic facilities that are needed to cater for patients was highlighted by sixteen participants. Ten of the participants had a tertiary level of education and fourteen were married. Their emphasis on facilities was not only narrowed to equipment required for clinical investigations but other components, such as the structure of the building and aeration of the facilities were also mentioned.

> *"The equipment for them to use there, they don't have it. Inefficient equipment there (…). The surrounding too. The surrounding is not even enough and there is no space for air ventilation, because we need ventilation and so on. I think the working equipment they may not find it in the primary healthcare, so you have to come to the general".*
>
> *SRSU23, P1, L17-19, L22-29*

> *"There, they don't have equipment, that's just the fact. Because first, when I had that miscarriage I was having some pains, some pains, so now I was asked to run some tests. When I gave them the specimen or whatever, they have to take it to FMC at Gawu or Lambata they call it, to go and run the test as they don't have the equipment".*
>
> *SRSU6, P4, L162-169*

Due to the lack of equipment in the PHC facilities, the patients have to go elsewhere or to the general hospital to be able to get their investigations completed.

Availability of basic equipment at the secondary healthcare facilities

Twenty participants of varying socio-demographics indicated the availability of basic medical equipment at the secondary healthcare facilities. They spoke of having amenities, such as a pharmacy within the secondary healthcare facility, which enables them to receive treatments

and medications at the same place. In addition, some basic components, for instance lights and fans were also highlighted as components which influenced their decision to present at the secondary healthcare facility.

> *"After the prescription you will even be able to buy your drugs instantly in the hospital. It's not necessary you go out to go and look for the drug store".* *SRSU15, P3, L112-116*

> *"You know when we get to a hospital as a, as a patient, we discover that there is light, a fan, the breeze is blowing. You know it reduces the pains and the, the sickness that is in the body". SRSU5, P4, L192-196*

Aside from the direct equipment used by the healthcare providers, components such as light and good aeration in a facility also plays an important role in the well-being of patients, as highlighted in the excerpts of one of the participants (SRSU5) above. This in turn may possibly influence the decision of patients on where to go to for healthcare.

Lack of investigation prior treatment at PHC

Participants also highlighted their preference for having a medical test conducted prior to being administered medications. The administration of medications by healthcare providers without any investigation was perceived as common practice in the PHC facilities and is an aspect which the participants were not comfortable with. Out of the ten participants that presented this view, none of the ten participants were educated below secondary level, four of the participants were government employed, and another four were unemployed, while the remaining two participants were non-government employed.

> *"You know as I said earlier on, the primary healthcare, you just complain the test will not be ordered for you so actually you will just be on the drug without knowing the problem you are*

having. It's through signs and symptoms only. So, that's the reason I have to boycott the primary healthcare and go directly to the general hospital". *SRSU15, P5, L225-232*

"In the general hospital they will check everywhere, even where you don't expect. But our own in primary healthcare we do not do that. Once you say headache, ah na because of sun. When you say fever, na mosquito, ahh even though is mosquito draw my attention, touch my body, how do I feel?" *SRSU21, P7, L312-319*

Remarkably, participants spoke with a keen interest to identify what is actually wrong with them based on objective findings from investigations conducted rather than being placed on medications or treatment based on a subjective diagnosis, which they associated with the PHC facility. However, there appears to be a connection between the inability of the PHC facilities to conduct a test prior to administering medications and the participant's notion of lack of equipment in those facilities.

Several participants mentioned some of the equipment they would like to see at the PHC facilities to enable them to use those facilities. For example, scanning machines, communication systems (help line), an ambulance, x-ray machines, malaria kits, lights, water and the physical building of the PHC facilities were highlighted as facilities that need to be provided at the primary level of care.

"They should provide a lab and they should provide pharmacy". *SRSU24, P4, L184-186*

"Like lab, ward, water, I don't think they have a water source there ***(PHC facility)****".*

SRSU6, P5, L220-221

"This scanning machine, I don't know maybe they have it there because I have never used it throughout my going there ***(PHC facility).*** *I don't know maybe they have it and if they have it,*

it will help people, instead of rushing down to the general hospital, ... once its functioning they can also go there and do their scanning". *SRSU12, P6, L286-294*

Theme summary

The availability of equipment at the secondary healthcare facility and the lack of the same at the PHC facilities were spoken of by the service user participants as one of the factors that tend to influence patients' choice of seeking care directly at the secondary level of care. Notably, equipment was not only isolated to diagnostic tools but also included the availability of water, light and the appearance of the general buildings. Additionally, most participants who were educated up to the secondary level spoke of their preference to have investigations conducted prior to administering any treatment. They felt this was largely obtainable at the secondary level of care.

6.2.3.3 Advice from friends, relatives and others

Most of the participants (service users) interviewed in this study were married (twenty), however, irrespective of the other socio-demographics such as age, educational level, occupation and gender, some participants spoke about receiving advice from friends or relatives as one of the reasons to have sought care at the secondary healthcare facility. For example, one of the participants (SRSU18) explained how a conversation with friends about one's health can lead to suggestions to seek care at a particular facility.

"As a student or I can say as we are discussing now in a group, you may say I am suffering from…You know many of them they will advise you why don't you, (…) go to hospital and confirm or go and complain about this problem". *SRSU18, P9, L418-425*

"One of my brothers told me that I should come and eh, there is a general hospital in Lapai. I should come and just see what they will do for me". *SRSU16, P2, L89-92*

Another participant noted that he takes it upon himself to direct patients he knows to present at the secondary healthcare facility and sometimes makes himself available to take them there.

"I prefer going to that Kaduna Road, since I find that one, that Sabon Wuse, I like going there. So, anybody that is sick, any of my friend I will say let's go. I will just, I can even volunteer and drive the person to the place ***(secondary healthcare facility)****".*

SRSU4, P5, L227-232

Theme summary

The findings presented in this theme highlighted certain issues that contribute to service users circumventing the primary level of care. Some participants noted that their presentation to the secondary healthcare facilities was because of advice from friends or relatives. Most of the participants with these views were married. However, generally, majority of the service user participants interviewed in this study were also married, which may have reflected on the finding.

6.2.3.4 Expectations of service users

Participants also spoke about issues bordering on their expectations from the healthcare facilities that influenced their decisions to seek care at the secondary level of care.

Time wasting going to PHC facility

Six participants perceived the use of the PHC facilities as a waste of time. Five of the

participants who held this view were above 40 years and married. They had the view that they were unlikely to get what they wanted at the PHC facilities.

> *"You just go there **(PHC facility)** and waste your time, so I think I prefer to go to where I am sure I am getting what I want".* *SRSU11, P2, L85-88*

For one of the participants, the perception of the use of the PHC facilities as a waste of time was also tied to the fact that the healthcare provider designated to a particular PHC facility may not be found at the facility. The participant further stated that the healthcare provider may be engaged with their own personal activities, for example farming, leaving the service users with no choice than to seek care elsewhere.

> *"You went there **(PHC facility)** and they say he went to the farm, (…). Will you waste your time and wait for that person again? Maybe before he comes, you are, he is already tired, he cannot even listen to you very well and, and accommodate you".*
>
> *SRSU21, P3, L123-124, L126-130*

<u>*Negative attitude of staff at the PHC facilities*</u>

Eight participants cited the negative attitudes of some healthcare providers towards their patients at the PHC facilities, which discourage presentation to those facilities.

> *"The way they take care of patients there **(PHC facility)** is not, sometimes is not proper. A patient needs care and understanding, so sometimes they lack it".* *SRSU23, P1, L13-17*
>
> *"It is only one healthcare we get for my side. So that doctor, we are having problem before, that is why I never go and meet him again".* *SRSU16, P3, L131-134*
>
> *"I look at them **(PHC facility)** as unserious people, they are not serious. At times when you go there **(PHC facility)** you see them sleeping because people do not, don't go there, the way they go to the general hospital".* *SRSU4, P5, L238-243*

Aside from the need for participants to receive the desired treatment for their ailment, there was also the desire for empathy and respect from the healthcare providers. Thus, when these expectations were not met or when there was disagreement between the service users and healthcare providers, the service users had to look elsewhere for their healthcare.

A few participants also perceived a high level of dissatisfaction among the healthcare providers in the PHC facilities with their jobs, which was reported to be obvious through their attitudes towards the service users. Therefore, some participants suggested that by encouraging and improving the welfare of the healthcare providers in the PHC facilities, this may have a positive impact on the way the healthcare providers perform their duties and in turn motivate the service users to make use of the PHC services.

> *"The workers there **(PHC facility)** have to be active, they have to be active. Some nurses use to, they use to be, what will I call it, feel less concern you know whether they work, or do not work. At the end of the month they still collect their salary".* *SRSU4, P7, 302-307*

> *"Encourage the staff too because I really don't know what is discouraging them, sometimes they are not so keen on the job".* *SRSU11, P6, L267-270*

Trust and supervision

Twelve participants cutting across the different socio-demographic characteristics spoke of their outright lack of trust or confidence in the PHC facilities, with the belief that these facilities do not function to their expectations.

*"Sometimes you won't trust them **(PHC facility)**, and you have to go to the general, where you think that you have doctors and the nurses who are even qualified more than there **(PHC facility)**".* *SRSU23, P2, L61-65*

One of the participants (SRSU4), also added, as presented in the quotation below, that he would rather resort to self-medication by going to a pharmacy than to present at the PHC facility, due to the loss of confidence in the PHC facilities.

"I don't have confidence at all. Instead of going to primary health, I prefer to go to the pharmacy. So that is the thing, that is the truth. I don't, I have not for one day visited that primary healthcare". *SRSU4, P5, L219-223*

Nevertheless, the supervision of the PHC facilities was also highlighted as a way of monitoring the activities rendered in the PHC facilities, which was thought could also impact on the attitudes of the healthcare providers in discharging their duties.

"So that is, you know, there is problem, a big problem. The government should at least provide a monitoring team (…). Yes, to monitor all this primary healthcare".

SRSU5, P10, L453-455, L457-458

"The government to me, even as much as they try to establish this primary health centres, they could not continue to see that these health centres function to full capacity, which is a major challenge". *SRSU1, P4, L204-209*

The PHC facilities were considered to be left without supervision and hence, were seen to operate independently. One of the participants (SRSU5TAF) gave an example of his observation of the operation of a PHC facility.

"I have a friend that is working in the primary healthcare. Whatever they do, they realise at the end of the day, they share it". *SRSU5, P9, L438-443*

The quote above indicated that some of the healthcare providers run some of the PHC facilities as a personal or private facility, where the proceeds from the facility are distributed among themselves. Hence, the need for a functional monitoring or supervisory team, as suggested by some participants.

Theme summary

Findings from this theme revealed that most service users were disappointed with their expectations from the PHC facilities, seeing as they were unable to get the care they need from the facility. Thus, some service user participants called it a waste of time for them to present at the PHC facility for medical care. Others felt that the staff at the PHC facilities had a negative attitude towards their work and their patients. Therefore, effective supervision of the PHC facilities was suggested as a way of monitoring the services rendered by these facilities, to ensure effective healthcare delivery.

6.2.3.5 Access to the healthcare facility

Participants also discussed issues around access to healthcare facilities which impacts on their decisions to bypass their primary level of care. They highlighted issues such as the distance to the healthcare facility, fees charged at the facilities, waiting time, opening and closing hours and socio-economic factors.

Socio-economic status

Three participants touched on the socio-economic status of an individual impacting on their decision to circumvent the primary level of care. Two of the participants were government employees, while the third participant was unemployed. In addition, two of the participants had a tertiary level of education, whereas one was still a secondary school student.

The use of the different levels of healthcare facilities was equated with an individual's socio-economic status. The PHC facilities were viewed as lesser facilities and thus, only deemed appropriate for the poor, which might have also influenced patients' use of the facilities. Excerpts from a few of the participants' accounts are presented below.

> *"Somebody might be a civil servant. He is highly paid, as he works in Abuja or he works. Maybe he is a senior civil servant, so he feels that his status has gone above going to a primary healthcare level".* *SRSU7, P6-7, L294-298*

> *"People want ah, they want to go for. People will consider their taste you know, considering their taste and class, they want to go for something better. Why should I go to primary health when you know I can afford tertiary you know, so social class".*
>
> *SRSU1, P4-5, L226-231*

Service fees

Most participants (eighteen) across the different socio-demographics addressed service charges at the different level of healthcare facilities. For most participants, the goal was to find a solution to their medical problems and not necessarily be concerned about the fees they must pay at the healthcare facility.

"Since I will get the best result I need, I don't mind the cost. The expensive nature of the general hospital? I still go for the general hospital". *SRSU15, P6, L274-277*

"The general hospital is much more expensive, and I still believe that even if the primary healthcare, if they have the necessary things, the necessary equipment, the necessary drugs and the necessary trained eh, eh staff, at least they can, at least take care of the patients there in the primary healthcare. I believe the issue of expenses will still be the same".

SRSU2, P6, L282-291

Although the service fees at the general hospitals were perceived as expensive by most participants when compared to the PHC facilities, they however, still preferred to seek care at the secondary level. Specific participants further highlighted that if the PHC facilities had the same capacity based on equipment and the staff required to perform their functions, the issue of service charges might still be the same.

Distance

The role of distance to the healthcare facility was highlighted by eight participants. Participants that shared this view were mostly married (seven participants) and had a form of employment (six participants), either government or non-government employed. For some, the proximity of the secondary healthcare facility to where they live was a source of motivation to seek care at the secondary level.

"Because this one, the general hospital is in town. That one ***(PHC facility)*** *is far away but this one is in town. In fact, from here now you can trek to the market. Even that one* ***(PHC facility)*** *you can also trek to, but this one* ***(general hospital)*** *is a bit closer to my house than that one* ***(PHC facility),*** *the other one".* *SRSU12, P4-5, L195-201*

For other participants, distance was not a factor but rather the need to obtain a solution for their medical concerns.

> *"Well, certain, the issue of distance to me, to a patient does not matter because a patient when he is sick is looking for a place where he will get cured".* *SRSU2, P6, L266-269*

Opening and closing hours

Ten participants of varying age, gender and educational status mentioned the issue of opening and closing hours of the different levels of facilities to likely impact on their use. Participants were concerned about the unpredictable nature of the operational hours of the PHC facilities. They also made their fears known regarding the possibility of fatal health consequences in the event they present to the PHC facility and find no one to offer them medical help.

> *"The place **(PHC facility)** is always empty and timing too. Most of the time you go there very early or you go for an emergency, they don't come till after a while. So, are you going to wait there? If you are dying, you would have been dead before they come".*
>
> *SRSU11, P2, L51-56*

> *"In the general hospital, people are there 24 hours. This one goes, and another person takes over. There is no any time you come you cannot see somebody to attend to you, even though the doctor is not around".* *SRSU22, P6, L256-260*

Likewise, participants were also aware that the secondary healthcare facility provides twenty-four-hour service, which appeared to impact on their choice of going directly to the secondary healthcare facility.

The inconsistencies of the operational hours of the PHC facilities were also linked to the lack of supervision at the said facilities.

> *"They **(PHC facilities)** are not being monitored. At times you can get there and find the place empty, nobody in that place. You get there you find the place empty and nobody is in the hospital **(PHC facilities)**".* *SRSU5, P6, L277-280*

Waiting time

Approximately ten participants also discussed the waiting time to see a healthcare provider. The participants mentioned that the waiting time to see a healthcare provider at the secondary healthcare facility was longer compared to the PHC facility. They however, added that they were more comfortable waiting for a longer duration to be attended to at the secondary healthcare facility, than going to the PHC facility.

> *"You know there are many patients, they too they want to see the doctor, so you have to be prepared and wait. So, when it is your turn you enter but sometimes you feel like going home, you don't want to stay again. Sometimes, you will come, you will wait, you will wait for the doctor. At last you will not see the doctor, you will go back".*
>
> *SRSU23, P6, 253-260*

> *"People don't really mind, because if they know, because health matters. It is a very sensitive ah case, (…). This is your body, so you will be like no, no, no, I don't want any quack to come and touch me, so I don't mind even if I am going to wait the whole day. Provided I get the best for my health, I will wait".* *SRSU1, P8, L431-443*

The long waiting time in the secondary healthcare facilities highlighted by the participants was not considered a barrier to presenting at the secondary healthcare facility. However, the desire to wait for a healthcare provider at the secondary level of care, no matter the duration was probably linked with the availability of doctors, equipment, and the opening and closing hours of the facility, as stated earlier.

Theme summary

The findings from this theme pointed out the role access to a healthcare facility plays on participants' self-referral to a higher level of care. Participants noted that the socio-economic status of an individual was likely to play a role in where they sought for healthcare. They indicated that the more affluent patients were more likely to use the referral facilities, as the primary level of care was assumed to be for the poorer population. The proximity of the secondary healthcare facilities to some of the services users was viewed as a motivating factor to use the facilities. However, despite the proximity of the PHC facilities to most participants, they still sidestepped them to a higher level of care.

The irregular opening hours of the PHC facilities was also emphasised as a factor that participants felt deter patients from presenting to those facilities, while on the contrary, they felt the secondary healthcare facilities are opened for twenty-four hours in a day, which encourages their use. The cost of care at the secondary healthcare facilities was perceived to be on the high side by most participants when compared with the PHC facilities. However, the service user participants noted they were less concerned about the cost, as their needs were met at the secondary level of care.

6.2.3.6 Government regulations (policies)

Participants' opinion was also sought regarding the institution of stringent government regulations in order to control patients' use of the different levels of healthcare facilities. Most participants however noted that the enactment of any policy concerning the current state of the PHC facilities in Nigeria will not be a good idea. One of the participants (SRSU13LAP) stated that she would rather use the available private facilities than use any of the government healthcare facilities.

> *"If it is possible that all the care that you can get in the general hospital is available in primary healthcare, I think its ok by me. But if there is a policy like that without repairing primary healthcare first, I think instead I will be using private. I will not even go to both the general and the eh primary healthcare, I will just go to private hospital".*
>
> *SRSU13, P8, L362-370*

> *"If actually it should be done correctly. If these facilities as I have said are provided in primary healthcare, then that policy will work. But if the facilities are not provided there, like this laboratory equipment, qualified medical doctors, specialised medical doctors; if they are not provided there and you want to enforce policy, it will not work".*
>
> *SRSU15, P7, L302-310*

Participants suggested the need for the government to first make the PHC facilities functional by providing medications, equipment and the required healthcare providers before it can consider enacting stringent policies on regulating the use of the different levels of healthcare facilities.

Theme summary

Generally, participants agreed that the government have a role to play in ensuring that the

different levels of facilities operates as expected, which may deter patients bypassing the PHC facilities. However, the service user participants remarked that some conditions need to be met if any government policies will be adhered to. These conditions included not just the availability of the PHC facilities but the presence of healthcare providers with a preference for having doctors at the PHC facilities. In addition, the availability of medications and basic equipment at the primary level of care were other conditions that needed to be met by the government as suggested by the participants.

6.2.4 Need to self-refer

Andersen termed the need factors as the most immediate cause of health service utilisation. He described this component as the general health and function of individuals which encompasses the symptoms and diagnosis and how individuals judge their health conditions to prompt the need to seek care (Andersen, 1995). The medical symptoms of the participants were explored to obtain their account of how they perceived their medical conditions to warrant direct presentation to the secondary healthcare facility. Two themes emerged that fit within Andersen's component of the need factors (perceived need). These themes are listed below (see Appendix 11C for charting of the themes).

1. Symptoms of medical condition
2. Severity of symptoms

6.2.4.1 Medical symptoms

Participants spoke about the symptoms that necessitated them to use the secondary healthcare facility. Their symptoms varied and included feelings of tiredness, stomach ache, feverish feeling, headaches, breathlessness, dizziness and 'heart burn' among others.

> *"The problem that brought me here, I am feeling the side of my stomach. I am feeling pain".*
>
> *SRSU16, L109-111*

> *"Ah my problem is one thing, always if I am sitting and not working, I will be sleeping".*
>
> *SRSU18, L292-294*

> *"I don't know, I use to feel some pain in my body. Sometimes I feel pain in my waist. I used to think it is stress that causes it, but I don't know whether its malaria".*
>
> *SRSU23, L193-197*

> *"I used to have heartburn and this thing used to turn my intestine. I don't know, I am not comfortable".* *SRSU24, L99-101*

> *"My problem is that I normally bleed, and my time never even reach to see my menses then I will be, I will be bleeding".* *SRSU3, L175-178*

Participants presented to the secondary level of care with different symptoms. However, some of these medical symptoms might have been effectively managed at the PHC facilities without the need to present at the secondary level of care.

Theme summary

Different symptoms necessitated the service users to bypass the PHC facilities to the secondary level of care which reflects the indiscriminate use of the referral facilities, despite the likelihood that some of the symptoms might have been well managed at the PHC facilities.

6.2.4.2 Severity of symptoms

Participants perceptions of the seriousness of their health conditions was also noted. Some perceived their medical conditions as mild, while for others they felt it was severe enough to have warranted them to present at the secondary healthcare facility.

Mild

Eight participants identified their medical conditions as mild, the majority (six) were females, whilst six of the participants that held this view were above 40 years of age. Despite the perception that their medical conditions were mild they still bypassed the PHC facilities to present at the secondary healthcare facility. For example, one of the participants (SRSU12), had an idea about her condition but still felt the need for re-assurance thus, necessitating her to present at the secondary level of care.

> *"I think I was a bit down, so it wasn't like any serious major ailment".*
>
> *SRSU11, P3, L116-117*

> *"No, it is not that the condition is serious. I just want to, I want to know the month that I took in, to know when I am expecting my baby, just to be sure."* *SRSU12, P3, L140-143*

For another participant, the idea of trying to prevent a potential serious condition prompted the need to seek care at the secondary level.

"It's not a serious thing; it's not a serious thing. Our people say prevention is better than cure". SRSU22, P3, L114-116

Severe

Other participants from varying socio-demographics perceived their medical conditions as severe. This was attributed to varying reasons as experienced by the participants. For example, one of the participants claimed to have lost some weight which he termed to be a serious symptom for him.

"It's a serious condition because the way I am seeing my health, I am not like before, I am not like before. Before I was, I used to be someone very you know, huge but now I, I am getting down". SRSU17, P5, L229-233

For another participant, the perception of the severity of his own condition was because others were not experiencing what he was experiencing.

"Yes, for me, for me I think it's a serious problem because I don't like, like that because many people they are not doing that. I am the only one". SRSU18, P7, L319-323

Similarly, there were certain participants who identified their conditions as severe based on the interference with their normal daily pattern or activities, as presented in the excerpts below.

"It was serious, because for a whole night I couldn't sleep". SRSU1, P3, L155-156

"Yes, because yesterday I couldn't sleep the way I used to. I was sitting in my bed, my family they are sitting in my bed. I could not sleep so I don't want that thing to repeat today, that is why I quickly brought myself here". *SRSU20, P4, L182-186*

"Yes, because I wasn't getting myself, because I was weak. When the thing started, it started on Monday evening, so I could not drive". *SRSU4, P4, L191-194*

Irrespective of the participant's perception of the level of severity they accorded their symptoms, they still felt the need to avoid the PHC facilities in favour of the secondary healthcare facilities.

Theme summary

The perception of the level of severity of symptoms among the participants varied between mild and severe. Despite the subjective perception among some participants that their symptoms were mild, they still felt the need to present at the secondary healthcare facility, which may not have been necessary if patients knew they could get the care needed at the PHC facilities and had confidence in those facilities.

6.3 Healthcare provider's findings

This section starts by presenting the socio-demographics of the participants and then proceeds to present the healthcare providers' account of what they perceived as factors that influence service users to self-refer to the secondary healthcare facilities.

6.3.1 Socio-demographic characteristics of participants (healthcare providers)

A total of eighteen healthcare providers were interviewed. The healthcare providers comprised of six medical doctors who were all males, six nurses (three males and three females) and six community health workers (three males and three females).

The age range of the participants was between 30-58 years. Among the participants, the duration of working in the healthcare profession ranged from four years to thirty-five years. The medical doctors had the lowest range of duration of practice, ranging from four to seven years when compared with the nurses and community health workers. All participants were married except for one of the medical doctors who was single. Table 5 below presents the socio-demographic characteristics of the healthcare providers.

Table 5: Socio-demographic characteristics of participants (healthcare providers)

Identification no.	Age	Gender (M=Male; F=Female)	Duration of practice
Healthcare providers in secondary healthcare facilities- Doctors			
Doctor1	32	M	4 years
Doctor2	37	M	7 years
Doctor3	40	M	8 years
Doctor4	40	M	7 years
Doctor5	37	M	5 years
Doctor6	43	M	6 years
Healthcare providers in primary healthcare facilities- Nurses			
Nurse1	35	F	13 years
Nurse2	44	F	26 years
Nurse3	30	M	8 years
Nurse4	41	M	3 years
Nurse5	55	F	35 years
Nurse6	58	M	29 years
Healthcare providers in primary healthcare facilities- Community health workers			
*CHW1	33	F	13 years
CHW2	46	M	25 years
CHW3	35	M	4 years
CHW4	37	F	15 years
CHW5	51	M	25 years
CHW6	40	F	28 years

*CHW- Community Health Worker

6.3.2 Identified factors from the healthcare providers

From the interviews with the healthcare providers, six themes were identified, as listed below. Participants detailed their perceptions about the possible reasons patients circumvent the primary level of care to the secondary level of care. They also suggested how healthcare self-referral can be managed, as it applies to the Nigeria healthcare system (see Appendix 12 for charting of the themes).

1. Role of healthcare providers
2. Expectations of service users
3. Advice from friends, relatives and others
4. Role of equipment or facilities
5. Access to healthcare facilities
6. Government regulations (Policies)

6.3.2.1 Role of healthcare providers

The participants (doctors, nurses and community health workers) spoke about how the healthcare providers may be linked with the likelihood of patients' decisions to self-refer.

Patients want to be seen by doctors

The idea that patients want to be seen by the doctors was a common view among the participants. This view cut across the different groups of healthcare providers (doctors, nurses and community health workers) that were interviewed. Participants noted that the absence of medical doctors at the PHC facilities deters patients from presenting to those facilities, despite the availability of nurses and the community health workers in the PHC facilities.

"Yeah, for instance maybe based from findings or their own understanding of what they've heard, some bypass the primary healthcare because in Nigeria. Let me be frank with you, most primary healthcare facilities, about 95 percent of them don't have medical doctors, they only have midwives, CHEW, community health extension workers, so some will know that doctors are not readily available there, but at the secondary level they are always there". Doctor3, P5, L276-286

"We don't have a doctor, we don't have a doctor here ***(PHC facility)****, we don't have a doctor here* ***(PHC facility)****. We only try our best to control, to focus on work, just as I have said. We are able to manage those minor, minor conditions; hence, there is no doctor here. So that is one of the factors why they* ***(patients)*** *are bypassing this hospital; primary healthcare to the secondary healthcare". Nurse3, P6, L305-314*

Lack of staff

Participants noted that aside from the lack of doctors in the PHC facilities, there were also generally shortages of healthcare providers in those facilities. They emphasised that in some facilities there are no healthcare providers to render the required services, which is likely to encourage patients to seek care in the secondary healthcare facilities.

"In some health facilities again, the personnel that are supposed to be there in the primary healthcare setting are not there. We have erm inadequate personnel (…). We also have some health facilities that has no, nobody, in our remote areas. Nobody is running the health facilities. The clinic is just there, nobody is there". CHW5, P5, L258-262; P8, L437-441

One of the doctors also added that the lack of staff at the PHC facilities may be linked to the fact that there is lack of basic amenities in the areas where the PHC facilities are located.

*"Nigeria is lacking manpower in the health sector due to poor handling of health workers, so most of them are disappearing. People **(healthcare providers)** no longer go to villages, there's no electricity, no pipe borne water".* *Doctor3, P7, L360-364*

The competencies of the healthcare providers

Some of the doctors talked about the competencies of the healthcare providers in the PHC facilities who are primarily the nurses and community health workers. They felt it was generally unsafe for the patients and expressed the feeling that most patients are uncomfortable being attended to by the community health workers.

"Most people are not comfortable with community health extension workers attending to them. It's just a psychological problem (…) from what I have seen, from the referrals I've had. It's sad actually and unsafe, that's the truth". *Doctor1, P6-7, L289-308*

"I think eh they are not competent to handle some of those cases. In fact, they might be competent at their level, but the thing is, they do, they over do, they don't know where their limit is, where their limitation is. You understand?" *Doctor 2, P5-6, L285-291*

Likewise, one of the nurses also remarked that some patients believe the level of care received from the primary level is not comparable with that of the secondary level of care and thus, influence patients' use of the referral facilities.

*"Some bypass the primary level, (…). Some of them **(patients)** are saying that the management they are given in primary level is not so standard like that of the secondary level. Again, the differences they are showing is that this is primary healthcare and that place is secondary healthcare. So, they have doctors there **(secondary healthcare facility)** and here **(PHC facility)** we don't have. So, that is it".* *Nurse4, P9-10, L443-450*

Additionally, participants also suggested the need to have not just trained and qualified staff in the PHC facilities but also doctors. A few participants spoke specifically on the need to have Nigerian National Youth Service doctors (these are the fresh medical graduates who are posted for their one-year mandatory Nigerian National Youth Service) to be made available to the PHC facilities, which is viewed as a means that will encourage patients to utilise the PHC facilities.

> *"Primary healthcare should have at least a resident doctor, one, that will look into, that will be able to give the necessary or necessary obstetric care, which most of them are lacking, then qualified personnel's, not CHEW. Some primary healthcare facilities, they don't have qualified people, instead of using real nurses, they are using community health workers, who are not real nurses (…). So, it's imperative that a doctor should be positioned there to assist (...). This is one thing they need, a doctor and a midwife".*
>
> *Doctor3, P6, L328-338; P7, L354-360*

> *"This problem comes from the government mainly. Why did I say so? ... Like this health facility, we have some health facilities that are supposed to have at least a corper, medical, someone (...). A doctor is supposed to be attached to the, each health facility, like this health facility is supposed to have at least a corper attached to it. You know, if we have that, we will have more clients".* *Nurse6, P5, L269-281*

<u>*Collaboration between the different levels of facility*</u>

Participants also highlighted the need for mutual partnership between the primary and secondary healthcare facilities by being able to support each other, both in the referral and back referral of patients. They believed this will decrease the burden on the secondary healthcare facilities, as well encourage the use of the primary level of care.

"Secondary health services, they also need sometimes, they need also to take some actions because sometimes when a person comes with a very simple case, which you know is supposed to be handled by the health facility that is very, very close to such person, you still, you still receive him, instead of, may be if you give the first treatment, if need arises eh. Then the next thing is telling him to go back to the primary healthcare clinic very close to him for continuity of treatment. They don't do that, they prefer the person to be coming, in most cases because of financial advantage, that is it. So, if they are also enlightened, he knows that even if he goes there they will tell him to go back to where he comes from".

CHW5, P9, L469-486

"If there was a good system of referral, where once the health worker discovers that this case cannot be handled there, he doesn't waste a minute more to refer. I will say the, the best option is for these patients to go to the primary health centre first. A diagnosis is made, I cannot handle it, go higher, as it will reduce the burden on the secondary healthcare centre and also make efficiency a major goal". *Doctor4, P8, L422-431*

Generally, the healthcare providers account highlighted a disconnection between the different levels of facilities, whereby patients are seen presenting to the referral facilities with minor ailments that can be addressed at the primary level of care.

Theme summary

The healthcare providers corroborated the servicer users' information on the fact that most patients prefer to be seen by a doctor. Moreover, apparent in the findings of this theme was that most of the doctors felt the nurses and community healthcare workers who are the principal healthcare providers in the primary level of care were not competent in managing most medical cases, which were some of the factors possibly linked to the service users seeking healthcare at the referral facilities. As a way of addressing part of the problem,

participants suggested the need for mutual partnership between the primary and secondary level of care and to also make doctors available at the PHC facilities.

6.3.2.2 Service user expectations

Generally, the healthcare providers perceived that patients have an expectation regarding the healthcare facilities and if not met, this was likely to influence their decision to seek care at the secondary healthcare facility.

Waste of time

Some of the healthcare providers (three doctors, two community health workers and one nurse) with varying durations of practice noted that patients perceived going to the PHC facility as a waste of their time. They added that patients do not think they can receive the best care from the PHC facilities, suggesting that in some cases, the patients might have spent their time and money at the PHC facilities without a positive outcome. Therefore, in subsequent events, the patients will decide to directly pursue healthcare at the referral facilities.

> *"The patient wants the best, (...) and sometimes if they go to primary health centres they spend money, time and at the end they don't get what they want".* *Doctor4, P8, L414-417*

> *"The case is that most times when some feel that even though we come with this case, in fact it is better we just move direct to the secondary facility. That is why you see some patients they decide to go there* ***(secondary health facility)****".* *CHW5, P1, L12-17*

Lack of trust in the primary level of care

Four doctors and two nurses spoke of the lack of trust concerning the primary level of care.

They ascribed this to the absence of the required healthcare providers at PHC facilities.

> *"I think it is the lack of trust in the primary health centres which actually is caused by the lack of manpower".* *Doctor2, P5, L239-241*

Notably, one of the medical doctors also revealed that the service users are likely to view themselves attending the PHC facilities as a 'gamble' with their lives due to the lack of confidence in the PHC facilities and thus, may necessitate their decision to bypass the PHC facilities for a higher level of care.

> *"Also, it's the issue of confidence in the primary health centres. From what people have heard, what they've said they prefer to say no, no I don't just want to gamble with it, let me go straight to where I will get the best".* *Doctor4, P8-9, L457-462*

Patients-healthcare provider's relationship

Views highlighting the patients and healthcare providers relationship was principally stressed by the healthcare providers in the PHC facilities (two community healthcare workers and three nurses). They indicated that the attitudes of some healthcare providers towards their patients are occasionally poor. They also added that in the event where there is no good rapport between the patients and healthcare providers, there is a tendency to seek care elsewhere.

> *"There are also relationship issues. Relationship issues in the sense that it's funny to find out that there is a health facility, there is health worker, but there is not a good rapport between them* ***(service users)*** *and the health worker. So, they can bypass and decide to go to the bigger hospital".* *Nurse5, P6, L318-325*

Consequently, one of the participants (CHW3) also felt that creating a good rapport between the healthcare providers and patients is likely to encourage service users to present at the PHC facilities.

> *"Human relations (…) healthcare provider relationship with client. The more you, you have good relations, you create a good rapport with them that is why they will come to you (…). There are many ways of getting this thing done. One, one important way is the the manners which the health worker do behave with their clients". CHW3, P6, L321-326; P7, L393-397*

Likewise, one of the participants (Nurse4) gave an account of his approach with some of his patients to foster his relationship with them. He narrated how visiting patients at homes and patients having easy access to him tend to strengthen their relationship and motivate the utilisation of the PHC facility where he works.

> *"So, what we normally do, like me what I do. I go to their house, after evening when they come to my house, I visit them in the house. I ask them anywhere I meet them, how is your body? Is it fine? Sometimes they call me and say am I in the hospital. They say ah, can I come? I will say yes you should come. When they come they will see, the way they see the environment, and the way we ask for an investigation again, when we do ask for an investigation. So, it is that, that is what motivates some of them". Nurse4, P7, L309-327*

Theme summary

The findings above from the healthcare providers also corroborated the findings from the service users. They stressed that most service users are not willing to 'gamble' with their lives because they are unlikely to get the care they want at the primary level thus, necessitating their presentation at the secondary level of care. Furthermore, a good rapport between the patients and healthcare providers was emphasised, noting that this can either discourage or

encourage the service users regarding which facility to use.

6.3.2.3 Advice from friends, relatives and others

Participants also acknowledged how advice from someone the patients are familiar with may impact on the patient's decision to bypass their primary level of care to the referral facility. One of the excerpts presented below from one of the healthcare providers, noted that on questioning from the service users who self-refer, some of the answers given were that in order not to waste time a relative advised them to present at the referral facility.

> *"Then they will boycott the secondary level with even a case the primary healthcare can manage. They will take that case to the general hospital which is not supposed to, but if you ask some patients why are you doing that? They will say that eh, maybe they have relations or somebody like that, that said they should go to secondary straight. It's not good to waste their time in the primary health facility".* *CHW6, P4, L186-195*

Theme summary

The healthcare providers also noted that for some service users who self-refer, advice from individuals surrounding the patients also influence their decision on where to seek care from.

6.3.2.4 Role of equipment or facilities

Generally, the participants including the doctors, community health workers and nurses also indicated the role of healthcare equipment or facilities. They spoke on the need for equipment, such as those used for investigations and drugs to be made available at the PHC facilities. They perceived the absence of these facilities in the primary level of care was possibly related to service users' decisions to sidestep them.

*"There are some investigations that they will need, hmm, that are not even done there **(PHC facility)**".* *Doctor3, P6, L287-289*

"Maybe they feel we don't have enough facilities (…). Can't you see? Like you can see now the place is somehow shabby and rough. Some people look at the environment before they come in. Some people even come in and go out because they feel the place is not convenient for them". *CHW1, P4, L191-192, L214-219*

"So, the environment scares people around (…). The equipment too. Because if the place is well standard, people will not bypass us to the general hospital (…). If you go into the labour room you will even … Equipment we use, you understand, non-sterilised eh this thing. We use a stove to sterilise our instrument. We use jik to sterilise our instruments. Are you getting me? We have, we are supposed to have the autoclave to do all those things. Are you getting me? Even the ward, the bed ah is somehow, you get me? The environment, in short, the equipment around are not well satisfied to our own taste compared with the general hospital". Nurse1, P5, L239-240, L244-246, L249, L251-262

Therefore, to avoid circumventing the primary level of care, participants suggested the need to have different facilities in place in the PHC setting. Facilities suggested included renovation of the physical structure of the PHC facilities, availability of medications and provision of investigation equipment, as indicated in the excerpts below.

"My only suggestion is that the primary healthcare erm level should be standardised, just like other healthcare centres (…). Just like I told you before, we don't have a lab here, so some go directly because of the lab, (...). We don't have erm enough drugs again".

CHW1, P6, L310-312, L314-317

"What they can do to help us is to renovate this place. That is the number one job we need, to renovate this place (…) so that the place will look attractive. Anyone that is passing by will admire it. Just like this place, you can just (…). This place has been here for a long time. The

staff too are not happy, to talk less of the patients, understand? So those are the things that is making us, even we, we are not comfortable in this place".

CHW2, P5-6, L218-220, L223-231, L241-246

Moreover, there is a sense of dissatisfaction expressed among the healthcare providers about the PHC facilities. For example, one of the participants (CHW2) quoted above, stated how unhappy they were as staff of the PHC facility due to the state of their facility. Furthermore, she also empathised with the likely negative perception of the service users regarding the PHC facilities.

Interestingly, one of the participants talked about how he entices patients to present to their PHC facility. This involved telling patients they conduct some investigations that are not actually conducted at their facility, just to be able to get patients to attend the facility.

*"What I tried to do, I tell my people, people that are coming to me. I tell them yes, this hospital **(PHC facility)**, we do run so and so type of test. Because some of them used to come and say do they run genotype? Do they run hepatitis? I used to, even the ones we are not doing, I will tell them that we are doing. So, when they come to the lab eh… then when they run the test they will now take it to, there is one eh private lab. So, they will now take it there and give them, because they are not doing it here, (…). So that thing (…) is motivating some of them to come down here".* *Nurse4, P9, L398-413*

Theme summary

Most healthcare providers identified the lack of equipment at the PHC facilities as a contributory factor for avoiding them. In addition, the healthcare providers felt dissatisfied with the level of facilities at the primary level of care. Thus, suggesting the need for the government to make medications and basic equipment available, and to also renovate the

physical structures to help restrict patients bypassing the PHC facilities to the secondary healthcare facilities.

6.2.3.5 Access to the healthcare facility

Different aspects of access to the healthcare facilities that may prompt the service users to bypass the PHC facilities were discussed by the participants.

Availability of PHC facilities

The availability of the PHC facilities was highlighted by one of the nurses and a community health worker. They noted that the location of the PHC facilities are not prioritised, pointing out that some areas have more than enough facilities, whereas others lack these facilities. This was noted as a likely contributory factor to patients seeking care directly at the secondary healthcare facilities.

> *"The primary healthcare facilities in the first place have to be enough, properly placed, because we also have this problem of preplacement of health facilities because some of the placements, placing of health facilities are politically motivated. There are places that really need health facilities building. You discover that these buildings were not there, just because the person in power, do you understand? He decides to build or locate a health facility any place, notwithstanding, trying to find out whether that place is the ideal place to site that health facility. So, the health facility has to be properly sited".*
>
> *CHW5, P7-8, L395-410*

Moreover, the participant (CHW5) also highlighted that there are political motives behind the sighting of these facilities, noting that the political office holder's site these facilities without

proper consultation, and for political gain.

> *"Now if I take you to one of the wards now, you will discover that that ward has more than the necessary health facility. One village has about three health facilities, just because they have the advantage of having political officers. Do you understand? Whereby around that village, there are other villages that need, a dispensary but they don't have. But if you go there, you find about three buildings."* *CHW5, P8, L415-425*

Proximity of PHC facilities

One of the doctors noted that the proximity of a secondary healthcare facility to service users could prompt them to present directly to the secondary level of care, if their closest PHC facilities were miles away from where they reside.

> *"Well, another is some could be due to the, due to the proximity to them, you know. I can't be going to the primary health centre that is like 7 kilometres from me and I have a secondary health centre that is 2 kilometres away from me".* *Doctor4, P8, L451-456*

Opening and closing hours

Nine participants (two nurses, five community health workers and two doctors), with a wealth of experience regarding their practice, spoke about the role of the opening and closing hours of the PHC facilities, seeing as they influence decisions to seek care at the secondary healthcare facilities.

Participants observed that sometimes the PHC facilities may be closed for a particular function, such as when the healthcare providers need to go into the community to immunise children. This was however linked to the lack of adequate staff to provide cover at the facilities.

"Most of the health facilities we have in remote areas now, only have one person per health facility. Now we used to carry erm, these community activities, this adhoc assignment, like immunisation or whatsoever. So, if that officer in charge left that clinic when there is any case from the community, automatically for those four days you can't see him or her. So, what they need is, what they need do is, they just move to the secondary healthcare erm clinic (…). Sometimes even if he comes back, if the officer was not able to go and inform the community that he is back from such a trip or whatsoever, the community already know that he is not there. So, what they do, they don't even go to the hospital ***(PHC facility),*** *again. They go straight to the secondary healthcare facility where they think they will definitely meet personnel".* *CHW5, P5, L270-278; P6, L298-306*

One of the community healthcare workers (CHW6) noted that the service users believe the healthcare providers in the primary level of care only come to work when they feel like it. She noted that this discourages service users from seeking care from the PHC facilities.

"They asked them ***(service users)****, why are they not using their clinic* ***(PHC facility)****. Some said that eh because we* ***(healthcare providers)*** *are not coming to duty on time (…). Some said that we just come to work anytime that we like".*

CHW6, P5, L260-263; P7, L349-352, L355-356

Some of the doctors further pointed out that the secondary healthcare facility is open 24 hours a day, in contrast to the PHC facilities that have irregular opening hours, which they perceive to also play a role in patients bypassing the primary level of care.

"Attitude to work is poor let me say. They don't go to work on time. When you go there you won't meet them at work. They are limited to what they have. I want to say they don't have 24 hours service there, so when you go there at night you will not meet anybody. So, you have to come to the secondary facility. That's the way I see it." *Doctor6, P6, L318-326*

Cost of healthcare services

Eight participants (three doctors, four community healthcare workers and a nurse) who have had varying durations of practice in the health sector, ranging between four to twenty-eight years, presented varying positions on the cost of healthcare services between the primary and secondary healthcare facilities that may influence their use.

One of the participants remarked that there is the likelihood that services are cheaper at the PHC facilities due to the availability of some free medicines for some specific medical conditions. Nevertheless, he suggested that the irregular nature of the services provided by the PHC facilities cannot be depended on by the service users.

> *"It's possible. What if the medication is irregular. Just as I told you, when you need services, you can't get services when you need, when you need it. Of course, you have to go to another place, even if it is for free here. But you can't find the health worker, so do you wait until he comes back. You can't wait. You have to move to where you can even pay money for you to secure your life. So, this is it".* *CHW5, P7, L352-361*

Another participant perceived that the cost of care at the PHC facilities was likely to be more expensive. The participants noted that sometimes, the healthcare providers in the PHC facilities hoard the medicines supplied to them and subsequently, sell the same drugs at a higher rate to service users.

> *"The way I think of it, you know, in the primary level, some health personnel they used to hide drugs from patients, because that is what is happening. I am not saying we are doing the same but other places they are doing it, they will get drugs for the patients. It is not the amount they bought the drugs for that they will sell to the patient. If you are the health personnel you got this drug directly and give it to the client, hmm, the patient's relative to buy. The money will*

be less than what they will charge there. In the secondary level they will write medicines go and collect. Go to pharmacy to get the drugs. So, I am looking at it that it is more expensive in the primary level than that of secondary". *Nurse4, P11, L519-535*

Specific participants, primarily the doctors, noted that there is no significant difference between the service charges at the primary and secondary healthcare facilities. They implied that in some cases, the increased cost of care experienced by the service users in the secondary healthcare facility is most probably a result of investigations carried out in the secondary healthcare facilities that are not available at the primary level of care.

*"The fees here (**secondary healthcare facility)** are actually, almost nothing (…). I don't think it is a factor because the, that community health, that primary health, the investigation he does there **(PHC facility)**, he charges I think eh 5000, while the hospital (**secondary healthcare facility**) charges 2000".* *Doctor2, P6, L340-342; P7, L350-354*

"Well, the fees are the same thing. It is the same because cards here are being given for twenty naira. It's the same thing with primary health. Most of the investigations are done free, like malaria parasites, HIV screening (…). So, if you look at it that way, the fees might just be due to other investigations like, you now tend to talk of other higher investigations, where the patient has to pay but primary healthcare they don't do much".

Doctor3, P8-9, L449-460

One of the participants however stated that patients who utilise the PHC facilities were perceived to be people that do not have the financial capacity to use the secondary healthcare facilities.

*"People that will rather patronise them **(PHC facility)** are people that might not have the financial capability".* *Doctor1, P6, L263-265*

Thus, reducing the cost of care for service users at the PHC facilities was suggested as a possible option to possibly encourage the utilisation of the PHC facilities.

> *"The charges (...), we should reduce our charges to our customers because most of them don't have money".* *CHW3, P7, L397-400*

Theme summary

The above findings revealed that the healthcare providers perceived that the availability and locations of the PHC facilities were issues that likely influence service users' decisions to present to the secondary healthcare facilities. They acknowledged that priority is not given in relation to where to locate the PHC facilities. This results in some areas having more PHC facilities than they need, while others are deprived of the same facilities. Participants also highlighted discrepancies in the cost of care between the primary and secondary level, as a factor that was likely to influence patients use of the facilities, noting the likelihood of cheaper services at the primary level of care. However, it was argued that the discrepancies noted regarding the cost of rendering care between the primary and secondary healthcare facilities was possibly due to other services, such as the investigations that are obtainable at the secondary healthcare facilities, when compared to the PHC facilities. Thus, it was highlighted that servicers users' ability to pay for care may influence where they sought for care. Similarly, as identified by the service users, the opening and closing times between the primary and secondary level of care was viewed as a factor that encourages or discourages service users to use them. However, preference was given to the secondary healthcare facilities because they are open 24 hours a day, in contrast to the PHC facilities.

6.3.2.6 Government regulations (Policies)

Two doctors discussed instituting policies to address the issues of healthcare self-referral. One of the doctors commented that the government has a vital role to play to ensure tangible policies are in place.

> *"I think the government has to play a role that is the way I see the thing. Because eh you, there, until when there is solid policy on ground that eh this is how it's supposed to be. For anything that happens to you, you have to pass through the primary health centre before you go to secondary healthcare. It is from there they will direct you to the secondary health eh facility". Doctor6, P7, L352-360*

A further suggestion from the participants was the need to use different financial charges between the secondary and primary healthcare facility, whereby patients who self-refer will be made to pay more, with the aim of discouraging self-referral.

> *"Government can toe the line of action, where they have a basic eh standard cost for secondary healthcare, primary healthcare. So, people know even though you are going there, as a patient now decides to go directly to the secondary health centre; you know you are paying extra for it". Doctor2, P9, L474-481*

<u>Theme summary</u>

Aside from the need to have a strong policy in place to help regulate patients directly seeking care at the secondary healthcare facilities, the healthcare providers also added the need for patients who circumvented the primary level of care to the secondary level to be penalised in the form of extra financial charges to deter them from self-referring.

Table 6 below presents the similarities and differences highlighted by the services users and healthcare providers.

Table 6 : **Summary of the similarities and differences of the identified factors that influence healthcare self-referral from the healthcare providers and service users**

Themes	Service users	Healthcare providers
Understanding of role of PHC facility	-Service users understanding ranged from perceiving the PHC facilities as being closer to the people, rendering basic care or for a particular group of people such as pregnant woman and children.	
Understanding of role of secondary health facility	-This was perceived as facilities with broader services, having better facilities or viewed as a referral facility by some.	
Understanding of first point of call	-Opinions varied between the service users, for some the PHC facilities was the first point while for others the secondary health facility was perceived as the first point of call.	
Role of healthcare providers	-Staff (nurses and community health workers) in the PHC facilities were perceived as lacking the desired medical knowledge. -Service users had more confidence in doctors who are mainly available in the secondary health facilities.	-Similarly, the doctors (healthcare providers in secondary health facilities) questioned the competency of the healthcare providers in the PHC facilities. -There was general notion that the PHC facilities lacked doctors which was likely to impact on their by-pass.
Role of equipment/ facilities	-Most participants noted the lack of equipment which was not only narrowed to diagnostic equipment but also included the aesthetics of the buildings of the PHC facilities.	-Participants were also dissatisfied with the nature of the physical buildings in the PHC facilities and lack of medical equipment's.
Advice from friends, relatives and others	-Advice from friends or relatives appeared to play a role for service users self-referring.	-Relatives were also perceived as having a role in patient's choice of where to seek healthcare.

	-The need to educate and enlighten service users on the use of appropriate facilities was highlighted.	-Also highlighted was the need to educate and enlighten service users on the appropriate use of the PHC facilities.
Expectations of service users	-Loss of trust in the PHC facility with the notion that it's a waste of time going to the PHC facility because they were unlikely to get what they want. -Negative attitudes from healthcare providers was also highlighted	-Some healthcare providers also perceived it's a waste of time for service users to present at the PHC facilities because most of them are not willing to 'gamble' with their lives due to the likelihood of not getting the care they need. -Also highlighted was the need for healthcare providers to have better attitudes towards their patients
Access to the healthcare facility	-Cost of care and waiting time were reported as higher in the secondary health facilities but participants were less concerned about these factors if their needs were met at the secondary healthcare facility. -Most participants also noted the distance to their secondary facilities to be farther when compared to their PHC facility, they were however less concerned. -Irregularities in the opening and closing hours of the PHC facilities was also highlighted.	-Discrepancy in the cost of care between the primary and secondary healthcare facilities was attributed to extra services such as investigations available in the secondary healthcare facilities. -Irregularities of the opening and closing time of the PHC facilities was also noted, however it was pointed out that due to the few available staff in PHC facilities, when there is need for community activities to be carried out, the PHC facilities may have to be closed.
Policy	-Initiation of any policy regarding the by-pass of the PHC facilities in their current states was viewed as a negative step except if the PHC facilities were seen to operate at an appreciable standard.	-Felt having a policy in place to address the issue of self-referral will play a role in ensuring service users utilises the appropriate facilities with the hope of decreasing the burden of self-referred service users on the secondary healthcare facility. For example, penalty charges for service users who self-refer was suggested.
Symptoms	-Symptoms that necessitated participants to self-refer varied considerably from abdominal discomfort,	

	feverish symptoms and tooth ache to difficulty in breathing.	
Severity	-Participants were divided regarding the perception of their condition, while some viewed their condition as mild, others felt their condition was severe.	

6.4 Discussion for objective 1 findings

The first objective of this study was addressed by qualitatively interviewing the service users and healthcare providers. This helped identify some of the factors that are linked with the service users bypassing the PHC facilities to seek healthcare at the referral facilities. The views of the participants provided valuable insights on this subject, as it applies to the Nigerian context. This section therefore discusses the findings in relation to other literatures.

6.4.1 Predisposing factors

6.4.1.1 Understanding of the role of PHC facility

Findings from the qualitative interviews revealed that the service users had different levels of understanding regarding the roles of the different levels of healthcare facilities, which may have impacted on some of their decisions to seek healthcare at the secondary level (general hospital). The PHC facilities were perceived by some service users as facilities that should be within the reach of the population. In addition, others emphasised that the PHC facilities were meant for rural settings which they associated with the poor population.

The findings by Christian Aid (2015) confirmed some of the perceptions expressed by service users which could also be linked to their experiences with the facilities. Christian Aid (2015) reported that out of seventy-three PHC facilities they assessed across five States (Anambra, Benue, Kaduna, Plateau State and the Federal Capital Territory) in Nigeria, only one of these facilities was located in an urban area, while the rest were located in rural areas. The idea of the PHC facilities being viewed as facilities meant for poor and rural settings is contrary to the

Alma-Ata Declaration of 1978, which suggested that the PHC facilities should be as close as possible to where people live and work, and constitutes the first element of a continuing healthcare process. The Alma-Ata Declaration further stressed that, the need to have PHC facilities within the reach of the populace was not for them to be viewed as facilities for rural dwellers or the poor, but rather to be an integral and principal hub of the healthcare system (WHO, 1978).

This study also found that participants perceived the roles of the PHC facilities in fragments, whereby some participants identified the PHC facilities as only established to offer first aid care; others felt the PHC facilities were only designed for some specific group of people such as pregnant women and children. In addition, the PHC facilities were also perceived as having no significant role to play aside from the distribution of mosquito nets and immunisation.

Several roles of the PHC facilities highlighted above are components of the services expected to be delivered by the PHC facilities. Nevertheless, in addition to providing the aforementioned services, primary healthcare is also supposed to be much more encompassing at offering services, such as providing treatment for common medical conditions, management of common chronic illness such as diabetes, hypertension, in addition to the prevention of diseases by way of advice, immunisation and screening programmes (Centre for Academic Primary Care, 2017; WHO, 1978). However, in line with findings from this study, the World Bank (2010) determined that child and maternal care were the most readily available services compared to other services, in a study conducted in the PHC facilities of four States in Nigeria. Aregbeshola and Khan (2017) also reported that only about 20% of the 30,000 government PHC facilities available throughout the country are

functional. Therefore, most of the PHC facilities in Nigeria lack the capacity to provide essential healthcare services. The findings from this study suggest the possibility that service users observe and experience the common services delivered in the PHC facilities around them to subsequently judge and decide whether to utilise them.

The findings from this study also highlighted service users' suggestions concerning the need for educating or enlightening service users on the appropriate facilities they need to use. It was suggested that media such as TV, radio and translation into various local languages are made use of to disseminate the required information. Similarly, one of the reasons to self-refer identified by McGuigan and Watson (2010) was due to a lack of awareness on where else to go for help than to present at the emergency department of a referral facility in the UK. In line with findings from other studies, Durand et al. (2012) noted that one of the suggestions proposed by the healthcare providers' participants in their study, was the need for patient education regarding appropriate use of the healthcare services to assist them make more rational decisions. Likewise, some of the barriers to utilisation of the PHC facilities identified by Craker (2014) included the fact that service users were not aware of the services that GP practices offered, did not know what other services were available and did not understand the healthcare system.

6.4.1.2 Understanding of the role of secondary healthcare facilities

One of the perceptions held among service users regarding the secondary healthcare facilities was that they offered wider range of services in terms of medical conditions managed in those facilities. Reference was made to the conduct of surgical operations in the referral facilities in contrast to the PHC facilities. In line with this perception, Hensher et al. (2006) reported that the features of the secondary healthcare facilities include the availability of specialised healthcare providers, with more sophisticated diagnostic tools and more advanced therapeutic technologies that ensures the diagnosis and treatment of more complex medical conditions. Therefore, the understanding demonstrated among some of the service users translated into judging the secondary healthcare facilities as places to receive better care than the PHC facilities. Despite the evidence that 70% of the disease burden of a population can be resolved within the PHC facilities, in Nigeria, it is reported that less than 20% of the disease burden of the population are managed at the primary level of care; thus, this may suggest part of the reasons for the large bypass rates of the PHC facilities witnessed in Nigeria (Lambo, 2015).

The secondary healthcare facilities were also recognised as playing the role of referral facilities by some service users. They indicated that ideally a patient should present to the PHC facility first and if needed, the patient may be referred to the secondary healthcare facility. Back referral (feedback) to the primary level of care after being managed at the secondary or tertiary level of care was also deemed necessary by certain participants. Accordingly, the WHO (1987) emphasised that part of the role of the referral facilities was to

manage the patient as best as possible, and on discharge, explanation should be provided to the referring facility or healthcare provider on management and further care needed.

The findings from this study suggest that despite some service user understanding how the healthcare system is ideally supposed to operate, they still prefer to seek healthcare at the secondary healthcare facilities. This may be connected to other factors, for instance the lack of trust in the PHC facilities in the Nigerian healthcare system and perception of the severity of the service user's symptoms, which were findings that also emanated from the qualitative phase of this study. However, this study also established that back referral to the PHC facilities from a higher level of care was not common practice in the Nigeria healthcare system, which also highlights the lack of collaboration between the different levels of healthcare. Asuke et al. (2016) in their study carried out among healthcare providers in PHC facilities in Nigeria to assess their knowledge of referrals, also noted that participants reported the lack of getting back referral from the referral facilities. Similarly, a study completed in South Africa to examine the presence and adequacy of written feedback (back referral) from referral hospitals to the PHC facilities, found that out of the 858 referrals received during the period of the study, only 5.4% (n = 46) had feedback letters written to their PHC facilities (Legodi and Wolvaardt, 2015).

The qualitative findings revealed divided understanding among the service users regarding their knowledge of the first healthcare facility to visit when ill. Some of the service users felt the secondary healthcare facilities should be the first facility to visit, whereas others felt it was the PHC facilities. The divided understanding regarding this issue suggested that for some

service users, their understanding of the appropriate facility to utilise did not translate into actual utilisation of those facilities. Conversely, it may be judged that the genuine lack of knowledge of the appropriate facility to make use of among some participants when sick, may have impacted on their decision to seek care at the secondary healthcare facilities. Notably, part of these findings resonates with that of Abdi et al. (2015) who reported that approximately 65% of respondents in Ethiopia had no idea that the PHC facilities were the first facility they needed to visit prior to presentation at the general hospital if required.

Generally, findings from related studies, such as Craker (2014) mirrored some of the qualitative findings of this study. The focus group discussion carried out among the UK population revealed that a lack of understanding was the most powerful barrier among service users presenting to the emergency services with non-urgent medical conditions. Adding that the service users did not actually understand how the healthcare system operates and did not know about alternative services. Contrary to the findings from Craker (2014), Durand et al. (2012) ascertained that the patients interviewed in their study chose the emergency department of a referral facility in France as discerning health consumers, because the patients were well informed about the healthcare system and the primary care services available to them. Therefore, they were able to identify possible alternatives, and subsequently translated their assessments into a choice to use the referral facility. Despite the studies performed by Craker (2014) and Durand et al. (2012) were conducted among patients who presented to accident and emergency units, while this present study was undertaken within the GOPD of a secondary healthcare facility, similarities were still apparent in the findings.

6.4.2 Enabling factors

6.4.2.1 Role of healthcare providers

This study ascertained that the healthcare providers played a pivotal role for the decision making of the service users to utilise the secondary healthcare facilities. Generally, service users perceived that the PHC facilities had shortages of healthcare providers. They also remarked that occasionally the healthcare providers in the PHC facilities do close their facilities to attend to their own personal needs, such as going to their farms rather than attending to patients. This perception was also echoed by the healthcare provider participants in this study. They noted that due to the lack of basic amenities and poor conditions of the PHC facilities, healthcare providers are reluctant to work at the PHC facilities. This was also highlighted by Nnebue et al. (2014) who examined the adequacy of manpower and resources for provision of maternal health services at the PHC facilities in Nnewi, Nigeria. They revealed that only one doctor covered the four primary healthcare facilities that were studied.

Evidently, the problem of lack of staff in the PHC facilities is not peculiar to only Nigeria; a similar finding was reported by Kahabuka et al. (2012) who conducted a community based study with four FGD to explore caretakers' perceptions and expectations of services offered at PHC facilities in Tanzania. Though the study performed by Kahabuka et al. (2012) was conducted among caregivers of children under-five, compared to this study which was specifically among self-referred service users aged 18 and above. Kahabuka et al. (2012) found that a common perception was the claim that there was insufficient staff at most facilities to

provide the expected services. Furthermore, this was even more aggravated by their frequent absenteeism. They mentioned that only one nurse was usually available to do everything.

The absence of attending doctors in the PHC facilities was also a common theme in the findings obtained from a semi-structured interview conducted among service users in Saint Vincent and the Grenadines (SVG) by Beache and Guell (2016). However, in the United States, Grant et al. (2010) discovered that for some participants they self-referred to the emergency department of a tertiary healthcare facility because they were not yet registered with a family physician where they live and knowing that they could be seen without insurance at the emergency department. Accordingly, the operation of the healthcare system in the US differs from the Nigerian system which may create difficulty in comparison. For example, in Nigeria, it is possible to walk into any PHC facility to seek healthcare. However, it is principally paid for out of pocket by the patient, in contrast to other settings that may use a form of general taxation or insurance, such as the US or UK (Boyle, 2011).

The competency of the healthcare providers at the PHC facilities was also an area of concern highlighted among the service users. The medical knowledge of the healthcare providers in the PHC facilities was questioned and was perceived with fear of getting an erroneous diagnosis. The understanding among the service users that majority of healthcare providers at the primary level of care are either community health workers or nurses further amplified this concern, based on their preference for doctors who were primarily available at the referral level of care. Similarly, most of the doctors who participated in this study agreed with the fear expressed by the services users. They suggested that, due to the experiences from

the referral they had received in the past from the healthcare providers at the primary level, they felt it was unsafe for the service users to present to the PHC facilities.

A similar finding was reported in a telephone interview among patients who self-referred to the emergency department in the UK. In that research, McGuigan and Watson (2010) found that some service users felt that they would be treated by practitioners more qualified than their general practitioner at the emergency department, which prompted them to bypass their local healthcare practice. Likewise, Berry et al. (2008) in the US noted that parents of children presenting for non-urgent care interviewed in their study, remarked that the emergency department doctors were more skilled with children, implying that their family physician had little knowledge about babies, although the ED had trained staff for children. Thus, despite the primary care providers in the studies mentioned above were qualified GP's and family physicians, compared to Nigeria where the main healthcare providers in the PHC facilities are commonly nurses and community health workers, service users in those developed settings (the UK and US) also held the notion of seeing more qualified healthcare providers at the referral facilities.

This study found that subsequent to the perceptions of the service users regarding the different cadre of healthcare providers (doctors, community health workers and nurses); they preferred to be seen by doctors who were readily available at the referral facilities. Thus, prompting the decision to bypass the PHC facilities. Part of the Alma-Ata Declaration in 1978 suggested developing countries augment their PHC work force with community health workers due to the marked shortages of professional healthcare providers in those regions at

that time. The Declaration also added that community health workers should be adequately supported by working in close collaboration with the professional healthcare providers and referral facilities. Moreover, it was expected that with time, the PHC concept will evolve and develop differently in each setting (WHO, 1978). However, there is an apparent disconnection between the different levels of healthcare in Nigeria. For example, out of about seventy-three selected PHC facilities examined within five States in Nigeria, only eight facilities had a referral system in place, in the form of an ambulance to aid transportation to a higher level of care (Christain Aid, 2015).

Asuke et al. (2016) in their study conducted to assess and compare the knowledge and practice of referral among PHC workers in Northern-Western Nigeria, also found that the knowledge and practice of referral among the healthcare providers in the PHC facilities was poor. They ascribed this to the possible lack of training for the healthcare workers. Accordingly, reconsideration of prioritising the service delivery of family physician specialists in Nigeria has been suggested. The family physicians are trained doctors with the expertise to provide care at the primary level, although this is not the case in Nigeria, given that the family physicians are rather linked with the referral level of care in Nigeria (Ayodeji and Abimbola, 2014).

The findings from this study revealed that the different levels of healthcare facilities operate independently in Nigeria. The healthcare providers at the PHC facilities felt isolated without much support from the higher levels of care. In turn, the healthcare providers in the secondary healthcare facilities held the belief that the healthcare providers at the primary

level are not capable of effectively managing patients that present to them. Therefore, the service users are left to judge and decide the facility they need to attend regarding their care. Accordingly, both the service users and healthcare provider participants in this study recognised the need for collaboration between the different levels of care, which was identified as presently lacking.

6.4.2.2 Role of equipment or facilities

It was apparent from the qualitative findings of this study that service users placed emphasis on the need to have investigations performed to ascertain their specific medical problem before they were offered medications. However, it was noted that investigations are scarcely conducted at the PHC facilities. This was also a major finding by Kahabuka et al. (2012) among the caretakers of children under-five in Tanzania who wanted to know what was wrong with their children before they were given treatment. Kahabuka et al. (2012) reported that the caretakers displayed their disappointment with the primary level of care because the common practice was that the healthcare providers instituted treatment without investigation. Similarly, Berry et al. (2008) revealed that their participants felt tests were carried out immediately at the emergency department, which influenced the bypass of their primary care provider. Though studies undertaken by Kahabuka et al. (2012) and Berry et al. (2008) were conducted among parents or caregivers of children, their findings were still in tandem with that of this study.

The ability for a healthcare facility to be able to undertake an investigation is possibly linked to the level of equipment the healthcare facilities have at their disposal. Therefore, the service user participants in this study felt that the PHC facilities lacked basic equipment which

influenced their decision to present to the secondary level of care. Similarly, the healthcare provider participants in this study also agreed with the service users' view of lack of equipment at the PHC facilities. They pointed out that occasionally service users present to their facilities (primary or secondary healthcare) with the specific objective of receiving a medical test.

Aside from the need to have a medical test, there was also a negative perception of the general environment of the PHC facilities by the healthcare providers. They noted that the environment within the PHC facilities was 'rough and shabby', which was not convenient for patients and further highlighted that sometimes patients do present to the PHC facilities and leave due to the poor aesthetic appearance of the environment. Likewise, in Beache and Guell's (2016) study, it was not only the absence of attending doctors but also the absence of diagnostic facilities that further necessitated their participants to seek care at the referral facility. Durand et al. (2012) also determined that the availability of resources, such as laboratory tests and radiography was one of the advantages for service users presenting at the emergency department of a referral facility. Furthermore, the availability of medication at the same place served as an attractive attribute for the patients to receive a complete package of care at a single place.

One of the themes that emerged from research by McGuigan and Watson (2010) was the need for service users to have a diagnosis. Most of their interviewed patients had the perception that they would need an x-ray and so felt no need to see their GP because of the idea that they will still be sent to the emergency department and thus, decided to self-refer. However, a study Breen and McCann (2013) carried out among healthcare providers (nurses,

doctors and paramedics) in the Republic of Ireland, found that service users'perceptions of their need for certain investigations is not always accurate.

This present study also discovered that service users' perceptions regarding equipment/facilities was not only tied to the equipment required to make a diagnosis or conduct a test, but also the presence of amenities, such as light and water, and the general environment of the facility. Similarly, in Tanzania, Kahabuka et al. (2012) found that when caretakers had to use the PHC facilities at night, the working environment was not conducive, as they were supposed to bring a lamp with them to the dispensary since there was no electricity or any other alternative source of light. Hence, this was a source of discouragement to the caretakers.

The availability of water in healthcare facilities remains extremely important for sanitation, hygiene and consequently, infection control. This is also a concern for most healthcare facilities in Nigeria, as identified in this study. In line with this, Christian Aid (2015) found that out of the seventy-three facilities visited in Nigeria, only twenty-two facilities use the NPHCDA recommended motorised bore hole as a source of water, while other facilities depended on other sources, such as rain water, wells, in addition to surface water like streams, rivers and dams. Similarly, drawing on data from fifty-four low and middle-income countries in a multi-country review of Water, Sanitation and Hygiene (WASH) services in healthcare facilities, the WHO (2015b) learnt that 38% of the facilities visited lacked access to rudimentary levels of water. In addition, 35% of the facilities had no water and soap for hand washing, while 19% lacked adequate sanitation. Within the same countries, these deficiencies were noted to be more marked in PHC facilities in rural areas, compared to hospitals in urban areas.

Accordingly, this area has been identified by the WHO for urgent action to ensure that all healthcare facilities have WASH services.

6.4.2.3 Advice from friends, relatives and others

The qualitative phase of this study also recognised that service users sometimes tend to consult and listen to their relatives or friends when faced with health needs. For example, one of the participants noted that his brother had advised him to present to the general hospital to get the required care, as he articulated below;

> *"One of my brothers told me that I should come and eh, there is a general hospital in Lapai here. I should come and just see what they will do for me".* *SRSU16, P2, L89-92*

For another participant, ever since he identified the general hospital, he took it upon himself to encourage others to use the referral facility and also makes himself available to take others there if needed.

> *"I prefer going to that Kaduna Road. Since I find that one, that Sabon Wuse, I like going there. So, anybody that is sick, any of my friends I will say let's go. I will just, I can even volunteer and drive the person to the place (**secondary healthcare facility**)".* *SRSU4, P5, L227-232*

Consequently, it appeared that this action tends to become a cycle, where an individual identifies a facility and decides to share the information with others and it continues as a chain with an increase in turn over to the referral facilities. Similarly, findings from related literatures have also shown that advice from friends or relatives tend to impact on the decisions of the service users on where to seek healthcare. For example, another qualitative study by McGuigan and Watson (2010) found that advice from families and friends prompted

the use of the referral facility. They suggested that the patients' social networks play an important role in their decisions to self-refer. Likewise, other allied healthcare professionals, for example pharmacists, healthcare helpline advisers or GP receptionists have also been implicated as offering patients advice to use the referral facilities (Howard et al., 2005). In their research, Beache and Guell (2016) also discovered that the idea to circumvent the PHC facilities to the accident and emergency department of a referral facility was a decision shared and encouraged by others, such as the service users' families and friends. This was also in tandem with the finding reported by Koziol-McLain et al. (2001) among thirty interviewed uninsured self-referred patients to the emergency department of a referral facility in the US. They found that friends and relatives were called for support as well as for advice at times of ill health. Though, the participants and settings, both in terms of specialty (emergency department) and locations (UK, US, Saint Vincent and the Grenadines-SVG) of the highlighted studies differed from this present study, findings were however consistent with that of this study.

6.4.2.4 Expectations of service users

Findings from the interviews with the healthcare providers and service users revealed that the idea of going to the PHC facilities was viewed as a 'waste of time' by the service users. This was based on the perception that the service users were unlikely to get what they wanted at the PHC facilities. These perceptions consequently lead to loss of confidence in the PHC facilities (Kraaijvanger et al., 2015). In a study in the UK, Craker (2014) also determined that the participants in their FGD felt that by going to their primary level of care they would still be sent to the accident and emergency department of a referral facility. Thus, they presumed

it was easier for them to attend the referral facility in the first place. They added that the expectation of getting prescribed medications at the time of consultation at the accident and emergency department was another factor that influenced their decision on where to receive healthcare. This was also a similar finding for other studies, whereby the patients expected that their GPs would send them to the emergency department and thus, personally decided to take that initiative (Land and Meredith, 2013; McGuigan and Watson, 2010; Rasoulynejad, 2007).

Durand et al. (2012) also reported that despite service users understanding that their medical conditions were not life threatening, they trusted the referral facility to reassure and relieve them of their anxiety. Likewise, Kangovi et al. (2013) noted that among service users in the US, there is a greater sense of trust in the quality of care offered at the hospital, in contrast to the ambulatory care.

Findings from this present study also revealed that the relationship between patients and healthcare providers was a factor in seeking care at a particular facility. Participants pointed out that the attitude of the healthcare providers at the primary level of care was a cause for concern. They expected to be treated with some level of empathy but felt that was not the case. However, lack of motivation on the part of the healthcare providers for their job was felt to be a possible reason for some of their negative attitudes towards the service users. Accordingly, suggestions were made for better remuneration and proper supervision of the PHC facilities to get the desired healthcare delivery from the healthcare providers. Similar studies have also highlighted problems between service users and healthcare providers' that impact on which healthcare facility to attend. For example, Forrest et al. (2001) in a telephone

survey of speciality care users found that patients experienced relationship problems with their primary care physicians. The problems were principally centred on their primary physician refusing to make a requested referral for them, which necessitated them to seek care directed with a specialist.

In a South African study conducted by Visser et al. (2015) they observed that patients who bypassed their local PHC facility to the referral facility felt that clinical staff in the primary level did not treat their patients considerately. This was however noted to be more pronounced as a factor among the educated participants as compared to the responses from the uneducated participants. It is likely that the educated individuals in the study by Visser et al. (2015) may have been more conscious of their rights and thus, picked up on some of the actions of the clinic staff in the PHC facility. Kahabuka et al. (2012) also ascertained that the caretakers in their study felt that the healthcare providers in their PHC facilities lacked compassion for their sick children. They noted that the caretakers sometimes receive ill-mannered responses from the healthcare providers, such as being yelled at, which in turn, occasionally influence their decisions to avoid those facilities.

6.4.2.5 Access to the healthcare facility

Access to healthcare facilities was a common theme identified in the qualitative aspect of this study as a possible reason for bypassing the primary level of care. This theme was observed to have multi-faceted dimensions. For example, both the service users and healthcare providers highlighted the socio-economic status of patients as a potential factor for utilising either the primary or secondary healthcare facility. They perceived that the wealthier patients were more likely to attend the referral facilities. This assumption may be peculiar to the

Nigerian healthcare system and other similar healthcare systems, where healthcare services are predominantly paid for out of pocket by the patients. Most participants felt the cost of healthcare was higher at the secondary healthcare facilities when compared to the PHC facilities. Despite this assumption, the service users still felt the need to use the referral facilities. Nevertheless, the healthcare providers pointed out that the perceived higher cost of care at the secondary facilities may be due to the extended services, such as investigations carried out at the secondary facilities.

In Namibia, Low et al. (2001) learnt that the perception that the cost of care was relatively low at the referral facility prompted their use. Similarly, in Australia Masso et al. (2007) noted that the lack of charges to see the doctor at the emergency department prompted the patient to self-refer. In a study conducted in the US by Kangovi et al. (2013) among patients of low socio-economic status, they found that their participants viewed hospital care as more affordable than primary care because uninsured patients could not afford fees for regular primary care visits and therefore, relied on hospital charity when they fell ill. Accordingly, the funding for healthcare systems differs for different settings, which could impact on how patients use the healthcare services available to them. As highlighted previously, in Nigeria healthcare services are mainly paid for out of pocket by the patients, compared to settings like Australia, the US and the UK among others where healthcare services are organised either via a form of general taxation or insurance.

The findings from this study also highlighted the opening and closing hours of the PHC facilities as a factor that tends to influence service users' decisions to seek care at secondary

healthcare facilities. The inconsistencies of how the PHC facilities operates, coupled with the understanding that the secondary level of care is in operation 24 hours a day appeared to favour the use of the secondary level of care. In addition, the difficultly associated with finding a healthcare provider at the PHC facilities during their normal working hours, as stated by the services users may have reflected on circumventing the facilities. However, some of the healthcare providers remarked that this may be linked to the shortage of staff, emphasising that, the need for community activities, such as immunisations may force the PHC facilities to be closed. Nevertheless, there was a general perception that the PHC facilities lacked proper supervision which has degenerated into the irregular operation of the facilities, as articulated below by one individual below.

> *"They **(PHC facilities)** are not being monitored; at times you can get there and find the place empty, nobody in that place".* *SRSU5, P6, L277-279*

Accordingly, this finding reproduces that of Kahabuka et al. (2012) in Tanzania, who noted that the caretakers of children under-five in their study highlighted the closure of the PHC facilities during weekends, public holidays and even during the week when they were expected to be open between 8 am to 4 pm, as motivation to use the referral facilities. They further stressed how the closure of the PHC facilities impacted on them, noting that when their children required an injection during those periods, it had to be skipped until the healthcare provider became available. Similarly, in the Caribbean, Beache and Guell (2016) found that the limited scheduling of doctor-run clinics and the limited hours of functioning of the clinics motivated patients to self-refer to the accident and emergency department.

For others, the inability to use their PHC facilities during regular opening hours due to conflicts with their work schedule prompted them to present to the referral facility (Kangovi et al.,

2013; Grant et al., 2010). Additionally, some of the studies carried out in settings, such as the US, Australia and France, showed that the inability to get appointments with their primary care providers or long waits to get appointments were responsible for people seeking care at the referral facility (Kangovi et al., 2013; Durand et al., 2012; Grant et al., 2010; Masso et al., 2007; Howard et al., 2005; Koziol-McLain, 2001). In contrast, as stated earlier, in Nigeria the PHC facilities operate on a walk-in basis; thus, there is no need to be registered or to book an appointment prior to visiting the PHC facilities.

Another dimension related to the theme of access to the healthcare facility presented among participants was the proximity of the PHC facility or the secondary level of care. For some, despite that their PHC facilities were closer, they still felt the need to travel farther distances to access the secondary level of care. This may be related to the confidence they have regarding the secondary level of care. While for others, having a secondary healthcare facility closer to the service users was viewed as a motivating factor to use them. These findings were also echoed by Beache and Guell (2016), McGuigan and Watson (2010) and Low et al. (2001) who established that living close to a referral facility influenced their use. The ability to access the emergency department of the referral facility through the use of an ambulance and subsequently, being able to get all the services in one location, referred to as a 'one-stop shop', were perceived as enticement to use the referral facilities (Kangovi et al., 2013).

6.4.2.6 Government regulations (Policies)

The operation of healthcare systems in most settings is primarily regulated by the government of that country; consequently, the government have a pivotal role to play in ensuring effective healthcare delivery. Accordingly, the healthcare provider participants in this study recognised

the need for the government to be involved if an effective referral system is to be achieved in Nigeria. Suggestion from the healthcare providers was centred on the need to institute financial charges for patients who self-refer directly to the referral facilities to deter them from doing so. However, the service user participants noted that for any government policies to be adhered to with regards to self-referral, the PHC facilities needs to be seen as functional and operating at their expected standard. For others, an unfavourable policy will mean a total boycott of the government owned healthcare facilities in favour of the private healthcare facilities.

In line with the finding of this study, Durand et al. (2012) reported that the healthcare provider in their study also suggested the need to impose financial penalty on patients who inappropriately use referral facilities. However, in another related study by de Valk et al. (2014) who looked at the introduction of co-payments for self-referred patients to the emergency department of a referral facility in the Netherlands, as a possible solution to curb healthcare self-referral, it was established that approximately 30% of the self-referred patients were unwilling to pay to present at the emergency department, while half of the self-referred patients were prepared to pay up to 25 to 50 euro for their visit.

Read et al. (2014) noted that in Qatar the lack of a government health card primarily among expatriates, prompted their employers to send them to the emergency department for free services. The above findings from the related studies are however context specific; thus, in a setting like Nigeria with complex socio-economic issues and a different form of healthcare delivery, any government policies in this regard will have to be critically evaluated. In addition,

the local government level in Nigeria is responsible for the operation of the PHC facilities. It is one of the three tiers of government (Federal, State and Local Government) and has been identified as the weakest link in the government, in terms of both financial and human resources, which consequently impact on the PHC facilities living up to their mandate as the bedrock of healthcare delivery in Nigeria. Accordingly, it has been suggested that the Federal and State governments should take over or augment the running of the PHC facilities for a better healthcare delivery (Aregbeshola and Khan, 2017).

6.4.3 Need factors

6.4.3.1 Medical symptoms and severity of the symptoms

Different medical complaints necessitated participants' bypassing the PHC facilities. Some of the symptoms included feelings of tiredness, stomach ache, feverish feelings, headaches, breathlessness, dizziness and 'heart burn'. Likewise, other related studies noted that their participants attended referral facilities with different medical conditions (Beache and Guell, 2016; Read et al., 2014; Kangovi et al., 2013; Durand et al., 2012; Grant et al., 2010). Though some of the medical conditions might have been effectively managed at the PHC facilities, the patients still felt the need to circumvent the PHC facilities. However, it is likely that patients judge the level of severity of their symptoms differently and thus, feel the need to bypass their primary level of care.

In this present study carried out at the GOPD, symptoms experienced by the service users were perceived as severe for some participants and mild for others. In a study carried out

among patients who presented to the accident and emergency department, McGuigan and Watson (2010) noted that most participants in their study judged their condition as serious, which necessitated their decision to bypass their primary level off care. This was similar to findings reported by Breen and McCann (2013) and Durand et al. (2012). Nevertheless, for Kahabuka et al (2011), majority of the children that were brought to the referral facility were for non-severe symptoms, while Koziol-McLain (2001) found that most of their participants rated their symptoms as moderate. Findings from this study and related studies revealed that patients bypassed the primary level of care irrespective of the perception of the severity of their symptoms. Therefore, additional factors, for example perception of the expertise of the healthcare providers, the facilities available at the different levels of care and moreover, advice from others, may also act as extraneous factors in influencing the patients' decision on where to attend for healthcare.

6.5 Summary

The findings from the healthcare providers and service users offered a comprehensive account as it applies to the Nigeria context on the probable factors that influence service users' decisions to bypass the PHC facilities to the secondary healthcare facilities. Their accounts helped highlight specific gaps in the healthcare delivery system in Nigeria. The perspectives of the service users and healthcare providers were found to overlap on most issues, as noted from the themes generated.

The key findings from the service users and healthcare providers suggested that patients evade the primary level of care due to a lack of basic equipment to work with at the PHC

facilities. Participants also felt there are shortages of healthcare providers at the primary level of care and where available, service users felt that the healthcare providers in the PHC facilities were not competent enough to provide the care required because they were either nurses or community health workers. Therefore, the service users made known their preference to be seen by medical doctors. The lack of competencies of the healthcare providers at the PHC facilities was also corroborated by the doctor participants who were principally available at the secondary healthcare facilities.

Also identified by participants was the patient-healthcare providers relationship, noting that where the rapport between both groups is not good, there is a tendency to seek care elsewhere. Participants agreed that some healthcare providers have negative attitudes towards their patients, which may result in patients seeking care at the secondary healthcare facilities. Therefore, they suggested the need for proper supervision of the PHC facilities. The role of the government was also identified as a means of instituting policies to regulate the utilisation of the different levels of healthcare facilities. However, this revealed mixed perceptions. While some of the healthcare providers advocated for extra financial charges for patients who bypass the PHC facilities directly to the secondary healthcare facilities, the service user participants noted that the PHC facilities should be made to function at an appreciable standard if any government policies need to be adhered to. It was also determined that advice from people the patients were familiar with tends to influence their decision in using the secondary healthcare facilities.

Patient's access to the healthcare facilities was also highlighted as a potential factor to encourage patients' self-referral. Participants stated that distance to the healthcare facilities,

socio-economic status of the individual, opening times, waiting time and the presumed service charges at a healthcare facility were likely to encourage or discourage patients to use the primary or secondary level of care. However, the service users noted their preference to use the secondary healthcare facilities despite pointing out that the waiting time and service charges were higher at the secondary level.

It should be stated that the service users had different ideas regarding the roles of the primary and secondary healthcare facilities. Some viewed the primary level of care as the first place to present to when sick, whereas for others, the secondary level of care was the healthcare facility to visit first. In addition, participants ascribed the role of the PHC facilities to be for specific purposes or groups of patients, such as pregnant women and children. The service users also reported different symptoms; and despite some participants identified their symptoms as severe, while others felt their symptoms were mild, they still felt the need to seek care at the secondary healthcare facilities.

As detailed in Section 4.2 (research design), this study adopted an exploratory sequential mixed method to address its objectives. The first objective (qualitative approach) of this research has been addressed as detailed above. The subsequent chapter is the methods applied regarding the second objective (quantitative approach).

7.0 Chapter Seven: Methods for Objective 2

7.1 Introduction

The findings related to the first objective of this study were presented in the previous chapter. The findings highlighted several factors perceived to be linked with healthcare self-referral to the secondary level of care that are contextual to the Nigerian healthcare system. This chapter details the hypotheses formulated for the second objective of this research. Subsequent sections of this chapter also describe how the quantitative data collection tool was designed. The methods adopted for the population sampling, sample size, data collection and data analysis are also addressed in this chapter.

The second objective for this research was;

- To examine the relationships between the identified factors that influence the decision to self-refer among the self-referred service users.

To help address this objective, eight hypotheses were formulated from the qualitative findings and related literatures, as detailed below.

7.2 Formulation of hypotheses

Evidently, the factors that influence healthcare self-referral among service users are numerous, as noted from the qualitative findings of this study and previous literatures (Abdi et al., 2015; Visser et al., 2015; de Valk et al., 2014; Alyasin and Douglas, 2014; Tsai et al.,

2010; Lega and Mengoni, 2008; Bianco et al., 2003). Likewise, the qualitative interview for this study also captured patterns among a variety of the socio-demographic characteristics of the self-referred service users who discussed a number of contextual factors as likely determinants for bypassing the PHC facilities to the secondary level of care, as applicable to the healthcare system in Nigeria.

The interviews revealed the likelihood of different relationships between the socio-demographic characteristics (age, gender, level of educational qualifications, employment status and marital status) and other variables (understanding of healthcare delivery, role of healthcare providers, role of equipment or facilities, advice and awareness, access to the healthcare facility, symptoms of medical condition, severity of symptoms and duration of symptoms) of interest among the self-referred service users.

Using Andersen's model as a theoretical framework for this study, the model suggests associations among the variables of the three components (predisposing, enabling and need factors) of the model to predict the utilisation of healthcare services. For example, Andersen and Newman (2005) suggested that age and sex are intimately related to health and illness whereby individuals within different age groups (predisposing factors) present with different types of illness (need factors) and consequently differ in the way they utilise medical services. Also highlighted is that predisposing factors, such as the educational status and employment status of individuals possibly suggests that their life style, which points to the environmental (enabling factor) and associated behavior pattern of the individual may be related to utilisation of the health service. Likewise, Andersen and Newman (2005) also empahsised that

the socio-demographic characteristics which are components of the predisposing factors may also be linked with the belief or knowledge (another predisposing factor) an individual has about medical facilities, which may eventually influence their health behaviour. Figure 10 presents a Venn diagram of the relationships hypothesised for the identified predisposing, enabling and need factors of healthcare self-referral.

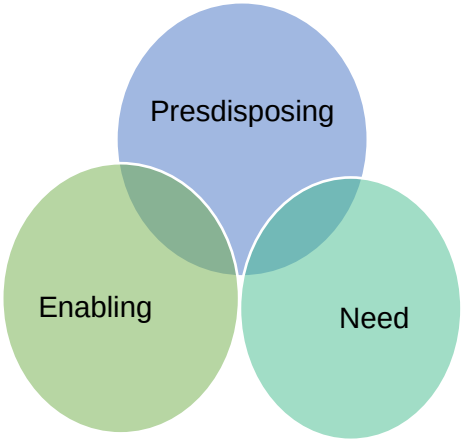


Figure 10: Relationships hypothesised for this study to predict healthcare self-referral

To identify any relationships between these variables as suggested by findings from the interviews, hypotheses were developed. However, hypothesis can take the form of directional or non-directional hypotheses. The non-directional hypotheses align to predictions where the exact form of differences is not specified as compared to the directional form of hypotheses which states the nature or direction of the hypotheses. Thus, the non-directional hypotheses states that a relationship, association or differences occurs between variables but does not predict the direction. This type of prediction is adopted when no clear direction between the variables has been identified in literatures or theories (Creswell, 2009; Adams, 2009). Likewise, in line with this study, despite studies have tried to examine the

relationships between different variables and healthcare self-referral, studies have been limited in looking at how different variables relate with each other to impact on healthcare self-referral. Therefore, there are no clear directions regarding the relationship between the different factors that influence healthcare self-referral, hence this study adopts the non-directional hypotheses to address the objectives of this research.

- ***Hypotheses***

Studies have revealed that there is an association between level of education and patients sidestepping the primary level of care to the referral level (Abdi et al., 2015; Alyasin and Douglas, 2014; de Valk et al., 2014; Shah et al., 1996). Similarly, studies have also revealed that the understanding of the healthcare delivery system among patients is linked with the bypassing of the PHC facilities (Abdi et al., 2015; Aguwa et al., 2010; Durrand et al., 2012; Land and Meredith, 2011; Northington et al., 2004). However, the levels of education and understanding of healthcare delivery has not been widely examined as it applies to healthcare self-referral.

Nevertheless, the qualitative phase of this study highlighted the possible relation of some factors with patients' level of education, which may impact on their decision to self-refer to the secondary level of care. For example, the findings from the interviewed participants in this study revealed that the level of education among self-referred service users may relate to their understanding of how healthcare is delivered in Nigeria, which in turn may play a role in the patient seeking care at the secondary level rather than the primary level of care. Thus, the hypothesis formulated was:

- *Hypothesis 1: There are differences between levels of education among self-referred service users in relation to their understanding of healthcare delivery in Nigeria.*

Furthermore, participants in the interview also felt service users level of education may be linked to how they perceive the healthcare providers at the primary level of care and the availability of healthcare facilities at the PHC facilities. This was apparent from the interviews with participant's in the qualitative approach of this study, where they pointed out issues, such as the competencies of the healthcare providers at the primary level, the lack of a doctors' cadre of healthcare providers at the primary level, the shortage of healthcare providers at the PHC facilities and the lack of basic diagnostic equipment at the PHC facilities. Similarly, some of the healthcare providers interviewed implied that most educated patients may have an idea of what is obtainable at the primary and secondary healthcare facilities and thus, influences their decisions to bypass the primary level of care to the referral facilities. Equally, studies have reported service users bypassing the PHC facilities to the referral facilities due to their perceptions of the healthcare providers and the lack of equipment at the primary level of care (Linden et al., 2014; Porro et al., 2013; Charante et al., 2008; Rasoulynejad, 2007; Guo et al., 2002; Kulu-Glasgow et al., 1998; Rieffe et al., 1999). Thus, the hypotheses formulated were:

- *Hypothesis 2: There are differences between levels of education among self-referred service users in relation to their perceptions about the healthcare providers at the PHC facilities.*

- *Hypothesis 3: There are differences between levels of education among self-referred service users in relation to their perception of equipment at the PHC facilities.*

The roles of relatives and friends offering advice on where to seek healthcare which culminates in patients presenting directly to the referral facilities has also been highlighted in the literatures (de Valk et al., 2014; Yaffee et al., 2012; Charante et al., 2008; Sempere-Selva et al., 2001; Rieffe et al., 1999; Singh, 1988). For example, Alyasin and Douglas (2014), in their study conducted in Saudi Arabia noted that the decision to seek care at the referral facility was influenced by advice from family members, which reflects the cultural orientation of the Saudi populace.

Most participants in the qualitative interviews of this study who highlighted the role of advice from friends and relatives to have played a part in their decision to seek healthcare at the referral facility were married. Of note, is that majority of the self-referred service users who participated in the qualitative interviews were also married, which may have reflected on the high number of married participants who stated they were adviced to seek healthcare at the referral facility. Therefore, the assumption made was that being married may provide a support system whereby partners interact with one another to seek advice and approval on where to receive care. Hence, the hypothesis formulated was:

- *Hypothesis 4: There are differences between the unmarried and married self-referred service users in relation to the advice received from friends, relatives or others regarding the utilisation of healthcare facilities.*

Access to the healthcare facilities was also talked about in different dimensions by the participants in the interviews for this study. They highlighted some of the issues in accessing healthcare, such as the distance to the secondary level of care, the fees charged in the facilities and the socio-economic status of the patients, as factors linked to the employment status of an individual. Thus, they perceived that a patient's employment/ occupation status was likely to determine where they access care. The healthcare providers corroborated several of the service users' opinion in the interviews by highlighting that the affluent patients were more likely to present at the secondary level of care, as the primary level was viewed as facilities for the poor population. Studies such as Kahabuka et al. (2011), Radcliffe et al. (2003), Lega and Mengoni (2008) and Charante et al. (2008) have also highlighted the ability to access healthcare as a possible factor that may influence service users' decisions to circumvent the primary level of care to the referral facilities. Hence, the hypothesis formulated was:

- *Hypothesis 5: There are differences between the employed and unemployed self-referred service users in relation to their ability to access the secondary level of care.*

In a study conducted by Alyasin and Douglas (2014) at a tertiary referral facility in Saudi Arabia, they reported that the older patients (greater than 60 years) were more likely to present to the referral facility for healthcare. They noted that it is likely a reflection of the burden of protracted ailments among this age group which they perceive requires primarily specialist care, which is readily available at the referral facility. Similarly, in the first phase of this study, one of the participants, approximately 54 years of age, noted that he might not be taken seriously if he presented to the PHC facility. He emphasised that he may be told his

ailment was age related which is contrary to the perception of what he thought was wrong with him. For other studies, younger age groups were linked with bypassing the primary level of care to the referral facilities (Kraaijvanger et al., 2015; de Valk et al., 2014). Accordingly, a range of symptoms or diagnosis has been reported in different studies linked to the self-referrer (Charante et al., 2008; Rassin et al., 2006; Northington et al., 2004; Kulu-Glasgow et al., 1998). Therefore, the hypothesis formulated was:

- *Hypothesis 6: Age is associated with the reported medical symptoms among self-referred service users.*

Despite the duration of symptoms of patient's medical conditions not being a theme in the qualitative phase of this study, however based on the literatures, patients reported different durations for their symptoms prior to presentation at the referral facilities (Porro et al., 2013; Kahabuka et al., 2011; Rassin et al., 2006). For example, Kahabuka et al. (2011) reported that it took the caregivers in their study between one to four days to present at the referral facilities with their children. However, from the study completed by Kahabuka et al. (2011), approximately 93% of the caregivers who bypassed their primary level of care to the referral facilities, were only educated up to the primary level. Thus, it may be assumed that the level of education of the self-referred service users may also play a role among patients who may judge their symptoms in different ways and consequently, decide either to delay or immediately seek care at the referral facility. Thus, the hypothesis formulated was:

- *Hypothesis 7: Levels of education are associated with the duration of medical symptoms among self-referred service users.*

The interview among the self-referred service users in this study revealed that the participants held different opinions regarding the perception of the severity of the symptoms they presented with to the secondary healthcare facility. Certain participants perceived their symptoms as mild, while others felt their symptoms were severe enough to have warranted them to present at the secondary level of care. Most of the participants from the interviews who identified their symptoms as mild were female. However, available literatures have been divided. While some reported that females are more likely to self-refer (Bianco et al., 2003; Akin and Hutchinson, 1999) others noted that males were more likely to bypass the primary level of care to the referral facility (Abdi et al., 2015). The level of perception of the severity of medical conditions has also been highlighted by some studies to have influenced patients' decision to seek care at the referral facilities (Land and Meredith, 2013; Lega and Mengoni, 2008; Masso et al., 2007; Northington et al., 2004; Shah et al., 1996). Consequently, the hypothesis formulated was:

- *Hypothesis 8: There are differences between the male and female self-referred service users in relation to their perception of the level of severity of their symptoms.*

7.3 Development of a quantitative data collection instrument

Developing a quantitative instrument entails many considerations, ranging from framing and arranging the questions to consider the scope of the questionnaire. Similarly, the layout, printing, wording and order of questions also need to be given adequate thought (Leung, 2001).

The development of a quantitative data collection instrument became necessary for this study to achieve its objectives, given that no tool from previously available studies completely captured the contextual issues relating to this problem, as it applied to the Nigerian healthcare system. Items in this instrument were developed principally based on the findings from Objective 1 (qualitative approach) of this research and where applicable guidance was sought from the literatures as well. The items in the questionnaire also followed suggestions from Andersen (1995) in relation to designing tools using Andersen's model. A number of studies that employed Andersen's model (Fleury et al. 2012; Song et al. 2010; Berra et al. 2006) were also examined for guidance. Overall, suggestions by DeVellis (2012) on the different stages to consider when developing a questionnaire were used as a guide in the development of the instrument for this study, as explained in the subsequent sections.

7.3.1 Determine what it is to be measured

DeVellis (2012) specified that to aid clarity for content of scales to be measured, the importance of substantive theory relating to the phenomenon being measured should be considered. He added that in the absence of a theory to guide the scale development, the researcher should formulate a conceptual framework. Accordingly, the first objective of this research was guided by Andersen's initial model of healthcare utilisation, which also informed the second objective of this research. Therefore, the scales developed were based on information on the components of the predisposing, enabling and needs to self-refer that was gathered from the qualitative interviews. This meant that the content and meaning of the scales developed were grounded in the information generated from the first objective of this

research and related literatures. Table 7 below presents the identified themes obtained from the analysis of Objective 1 (qualitative approach).

Table 7: Identified themes from Objective 1 (qualitative approach)

Predisposing variables to self-refer	Enabling variables to self-refer	Need to self-refer
-Understanding role of PHC facility -Understanding role of secondary healthcare facility -Socio-demographics	-Role of healthcare providers -Role of equipment or facilities -Advice from friends, relatives and others -Expectations of service-users -Access to the healthcare facility -Policy	-Symptoms of medical condition -Severity of symptoms -*Duration of symptoms

*Not a theme in the first phase but added from findings in the literatures.

7.3.2 Generation of item pool

Item pool is the general collection of statements from which the scale is built (Oppenheim, 1992). DeVellis (2012) recommended that the first step in this stage is to generate a large pool of items that have potential for eventual inclusion in the scale. This can be generated from related studies or literatures, exploring the concept by means of interviewing participants, or through an unstructured data collection approach among the group in question (De Vaus, 1996). Accordingly, this study started with the qualitative approach by exploring the concept

of healthcare self-referral, as contextualised to the Nigerian setting. Thus, the content of the questionnaire was based primarily on the findings from the qualitative interview and where appropriate, information from related studies was also employed in the development of the instrument. Accordingly, the pool of questions was well-structured based on the components of Andersen's model of predisposing, enabling and need factors (see Appendix 13 for the initial pool of items generated).

a) Predisposition to self-refer

The predisposing factors as mentioned by Andersen (1995) include the socio-demographic characteristics and beliefs or knowledge that may influence healthcare utilisation. While addressing Objective 1 (qualitative approach) of this research, participants with different socio-demographic characteristics were captured; therefore, similar socio-demographic characteristics were included in the questionnaire for the quantitative phase. The socio-demographic characteristics initially included age, gender, ethnicity/ tribe, level of educational qualification, occupation, religion and marital status.

Additional themes identified under the component of predisposing factors included "understanding of the role of the PHC facilities" and "understanding of the role of SHC (Secondary Healthcare) facilities". These themes were used to develop specific questions based on the information provided by participants in the qualitative phase. A Five-point Likert scale (1-Strongly agree, 2-agree, 3-not sure, 4-disagree and 5-strongly disagree), was employed to score the questions where participants identified their level of agreement or

disagreement with the statements. The theme on “understanding of the role of PHC” yielded nine items, while the theme on “understanding of the role of SHC” generated six items. These items are presented in the initial pool of items generated in Appendix 13.

b) Enablers to self-refer

Six themes were developed from Objective 1 for Andersen’s component on enabling factors. Several items were subsequently developed for each of the themes (sub-scales) based on the findings from the qualitative interviews and related literatures. These were also measured on a Five-point Likert scale (1-Strongly agree, 2-agree, 3-not sure, 4-disagree and 5-strongly disagree).

Among other themes for the enablers to self-refer, the “role of healthcare providers” was one of the key themes from the qualitative interview; hence, the need to examine this theme in the quantitative phase. Seven items were initially generated for this theme.

An additional theme in the qualitative interview was the “role of equipment/ facilities”. Seven items were initially formulated from the information gathered from the participants in the qualitative phase, which centred on the failure to have a test done in the PHC facilities, the dilapidated nature of the PHC facilities, the perception of the PHC facilities being dirty, the need to have a test completed before being administered medications and service users being able to have their tests undertaken in the general hospital. Aside from the fact that the items were principally generated from the qualitative interviews, studies such as de Valk (2014),

Masso et al. (2007), Kulu-Glasgow (1998) and Singh (1988) also highlighted several of the factors identified under this theme, as determinants of healthcare self-referral.

The theme on “advice from friends, relatives and others” was also included to be examined in Objective 2 (quantitative approach). Seven items were initially developed for this theme. The questions sought participants perceptions on issues, such as the influence of relatives and/or friends or based on a personal decision to present at the general hospital (secondary level of care), being aware of the type of services available in the general hospital, participants not aware of the PHC facilities around them and participants need for further information on the PHC facilities. Even though the questions for this theme were grounded in the qualitative findings, other related literatures, for instance Charante et al. (2007) and Singh (1998) also acknowledged the influence of how family advice impacted on patients’ self-referral.

Seven items were also initially developed from Objective 1 findings for the theme on “expectations of service users” the questions were centred on the service users’ confidence in the PHC facilities, not getting the care expected at the PHC facility, staff in PHC lacking the right attitude towards patients, going to the PHC facility termed as a waste of time by the service users, getting better attention and care at the general hospital.

A further theme identified in the qualitative interview was “government regulation (policies)”. The five items regarding this theme explored the likelihood of participants supporting government policy to use the PHC facilities prior to referral to a secondary

healthcare facility, the implementation of extra financial charges for bypassing the PHC facilities and if service users would rather pay the fine for bypassing than present at the PHC facilities or the need for PHC facilities to function at a standard before enforcing any stringent policies to use them.

Finally, fourteen items were initially generated for the theme on "access to the healthcare facility", based on the information generated from the qualitative interviews and related studies. Attempt was also made to examine a few studies that have investigated the area of access to healthcare to guide the item generation for this theme. For example, studies such as the "WHO Household Survey to Measure Access to and Use of Medicines", (WHO, 2009), "Access to and utilisation of health care among people living with HIV/AIDS in the Mankweng/Polokwane area" (Welhemina, 2009) and "Access to health care and employment status of people with disabilities in South India, the SIDE (South India Disability Evidence) study" (Gudlavalleti et al., 2014) were examined. However, it was observed that the data collection tools for these studies were contextualised to the specific area of interest of their research. Therefore, none of the tools was identified to fully capture the position of the participants, as expressed in the qualitative findings of this study; thus, the items generated for this theme were primarily focused on what the service users discussed in the qualitative interview. The initial pool of items generated for the different themes (sub-scales) are represented in Appendix 13.

c) Need to self-refer

The themes identified in the findings for Objective 1 concerning the need factors were "medical symptoms" and "severity of symptoms". Based on the different symptoms discussed by participants in the qualitative interviews and how they perceived the severity of their symptoms, it was important to include these items in the questionnaire. Due to the varying symptoms the participants mentioned in the qualitative interview, it was difficult to design closed questions for the item on symptoms, consequently, it was decided to initially leave the question open to the participants so that their specific symptoms can be documented and subsequently grouped into the different body systemic symptoms.

The participants' perception of the severity of their symptoms was included as an item in the instrument. This was addressed by participants identifying the level of severity of their symptom on a Five-point Likert scale (1-very mild, 2-mild, 3-moderate, 4-severe and 5-very severe). Similarly, Andersen (1995) noted that the perceived health need of service users can be based on their self-reported health status, for instance mild or severe.

In addition, the duration of symptoms was also included as an item in the questionnaire, as this could provide additional information on the need to self-refer. The inclusion of this item was drawn from related literatures which highlighted the role of duration of symptoms with service users' decision to seek care at a referral facility (Beache and Guell, 2016; Kahabuka et al., 2011; Dale and Dolan, 1997). Similarly, Andersen and Newman (2005) stated that the measure of perceived need include the numbers of days of disability reported by the individual.

Notably, the developed instrument could only examine the 'perceived need' which were the symptoms, severity of symptoms and duration of symptoms reported by the patients. The 'evaluated need' which is linked to the diagnosis proffered by the healthcare provider about the patient was excluded, due to ethical issues on the side of the healthcare provider divulging patients' confidential information. Alternatively, assessing patients' notes to acquire this information would also have raised ethical concerns. Therefore, the information on 'evaluated need' was omitted.

7.3.3 Determine the format for measurement

Determining the format of a measuring scale occurs simultaneously with the generation of a pool of items (DeVellis, 2012). There are varying formats in relation to scale measurement, such as Thurstone scaling, Guttman scaling, semantic differentials, binary options and the Likert scale (DeVellis, 2012). Oppenheim (1992) noted that it is impossible to single out a scaling method that is best, as each scale has its advantages and disadvantages; however, the best scale for enquiry is one which is most appropriate to the particular problem. For example, Oppenheim (1992) and DeVellis (2012) remarked that the Likert scale is useful when studying opinions, beliefs or attitude patterns, or looking at theories of attitudes. Guttman's scale is more inclined to study attitude change or the hierarchical structure of an attitude, while Thurnstone's scale is good for studying group differences. In line with the objective of this research to examine the factors that influence service users' decisions to self-refer, which attempts to gain the participants opinion and likely behaviour on the identified variables, the Likert scale was adopted as the measurement format for the questionnaire.

Similarly, the Likert scale has been employed by several studies that have adopted Andersen's model of healthcare utilisation. For example, Fleury et al. (2014) adopted the Likert scale to understand the predictors of healthcare utilisation for mental health reasons; whereas Jonsdottir et al. (2014) also investigated what predicts healthcare utilisation in relation to chronic pain. Likewise, the understanding of ethnic differences and use of healthcare services was also examined by Bowen and Gonzalez (2008), using the Likert scale unit of measurement. Studies on healthcare self-referral have as well employed the Likert scale measurement, for example Alyasin and Douglas (2014) adopted a 5-point Likert scale (1=Very dissatisfied to 5=Very satisfied), Rieffe et al. (1999) as well adopted a 5-point Likert scale (1=Very unimportant to 5=Very important) while Visser et al. (2015) employed a 3-point Likert scale (Agree, Disagree and Unsure).

The advantages associated with the Likert scale is that they are easy to construct; it is reliable and comprises rough ordering of people with regards to a particular attitude. It also provides more precise information about a respondent's level of agreement or disagreement rather than just a simple agree or disagree response or other dichotomous responses (Oppenheim, 1992). The principal criticism of the Likert scale is its lack of reproducibility, in the sense that the same total score may be obtained in numerous different ways; therefore, the argument that identical total scores may have a totally different meaning. For this reason, it is advised that the pattern of score should also be considered (Oppenheim, 1992).

When the Likert scale is used, the items are presented in a declarative sentence, followed by response options that indicate varying degrees of agreement or disagreement with the

statement. Thus, response options are worded to have roughly equal interval with respect to level of agreement (DeVellis, 2012). Though it is observed that five-point response levels are commonly used, there is no theoretical reason to rule out different lengths in relation to a response scale (Johns, 2010). However, an important aspect to consider while scoring each item scale point, is to decide from the outset whether one wants a high scale score to mean a favourable or an unfavourable attitude. Whatever the decision, it is advised to be consistent (Oppenheim, 1992).

7.3.4 Initial item pool reviewed by experts and consideration of inclusion of validated items

A team of experts reviewed the developed instrument, which is another stage proposed for a newly constructed questionnaire by DeVellis (2012). This is a relevant way of assessing the face and content validity of the instrument (Polit and Beck, 2006). Accordingly, content validity is described as the level to which an instrument has an appropriate sample of items for the concept being measured (Bowling, 2009). Typically, the judgement is made by a team of experts who indicate whether each item on the scale is relevant to the concept being measured (Polit and Beck, 2006).

One of the methods of quantifying content validity for multi-item scales, is the Content Validity Index (CVI) based on experts rating of the relevance or representativeness of the individual items and the overall scale, which are termed Item Content Validity Index (I-CVI) and Scale Content Validity Index (S-CVI) respectively (Polit, Beck and Owen, 2007). Grant and Davis (1997) mentioned that the most common method to determine this is by means of using

a four-point ordinal scale of 1-not relevant, 2-somewhat relevant, 3-quite relevant and 4-highly relevant. The index for relevance or representativeness of an item is judged to be content valid by receiving a score of 3 or 4.

It is proposed that a new content valid instrument should have a minimum Item Content Validity Index (I-CVI) of 0.80, if the expert panel are up to six or more and 1.0 if the expert panel are five or less. This is calculated as the number of 3 or 4 scores assigned to an item and divided by the total number of experts on the panel (Polit, Beck and Owen, 2007). Additionally, the Scale Content Validity Index (S-CVI) is the content validity of the overall scale, which is the proportion of items given a rating of 3 or 4 by all the experts involved (Polit and Beck, 2006). An S-CVI of 0.80 or higher is considered acceptable (Grant & Davis, 1997).

For the items generated for this instrument, a rating scale was provided for each item to aid the provision of objective opinion and also the provision of additional comments from the expert panel, where applicable. The review of the panel of experts provided content and face validity for the designed instrument, which led to the revising and deleting of items, as applicable (Polit and Beck, 2006).

The selection of the expert team for the panel review was also taken into consideration. Grant and Davis (1997) emphasised the need for the experts to have relevant experience and qualification on the subject. They also added that the numbers of experts recommended should range from two to twenty. Lynn (1986) remarked that the use of more than ten experts is unnecessary. Nonetheless, the final decision is said to be based on the desired expertise needed and the range of representation one wants on the panel (Grant and Davis, 1997).

The identified potential expert reviewers were purposively selected. Initially, invitation was sent to six researchers who have had a publication in the field of healthcare self-referral via emails provided on their publications. Three medical doctors known to the researcher who healthcare providers in secondary healthcare facilities in Nigeria were also invited to participate as part of the expert reviewers on the panel. They were contacted by way of their mobile numbers. The aim of recruiting the researchers and healthcare providers on the reviewers' panel was to be able to obtain diverse opinion on the instrument.

Out of the six researchers invited through email, two of the researchers agreed to participate in the review, one researcher replied notifying his inability to participate due to his workload, while there was no reply received from the other three researchers. Two of the medical doctors indicated their interest in participating in the panel review, while one of the doctors declined to participate due to his workload as well. Therefore, the final experts' panel consisted of four participants made up of two medical doctors from secondary healthcare facilities in Nigeria and two researchers with publications in the field of healthcare self-referral. Upon acceptance of their willingness to be part of the expert panel reviewers, an information sheet (detailing the instructions, purpose and scope of the research) and the initial pool of questions (See Appendices 14A and 14B) was forwarded to them via their e-mails.

Content validity index for each item (I-CVI) and the overall instrument (S-CVI)

The expert panel were asked to rate each item for their relevance to healthcare self-referral using an ordinal scale of 1=not relevant, 2=somewhat relevant, 3=quite relevant and 4=highly

relevant, which were further used to calculate the I-CVI and S-CVI. The I-CVI of each item was calculated by summing up the number of experts that rated the item as 3=quite relevant and 4=highly relevant divided by the total number of experts on the panel. The S-CVI was the sum of the I-CVI of each item divided by the total number of items in the instrument (Polit, Beck and Owen, 2007; Grant and Davis, 1997). Therefore, the initial S-CVI for the overall survey instrument was 0.83, while the initial S-CVI for the items related to predisposition to self-refer was also 0.83, that of the enablers to self-refer was 0.79 and needs to self-refer was 1.00. The CVI for each of the items is provided in Appendix 14C.

Despite taking the review of the experts' panel into consideration, care was taken not to lose some of the perspectives of the participants that were prominent during the qualitative findings. Items with a CVI of less than 1.00 were either deleted or reviewed. Moreover, items with a CVI of 1.00 where additional comments were provided by the experts' panel were reviewed. In total sixteen items were deleted from the initial item pool because of either a low I-CVI score, or where there was indication that the questions overlapped or had similar meanings to other questions in the instrument. After the deletion of the sixteen items, the overall instrument CVI was recalculated as 0.86 which is adjudged satisfactory by Polit and Beck (2006). The recalculated CVI for the predisposition, enablers and needs to self-refer items were 0.84, 0.85 and 1.00 respectively. The lists of deleted items from the pool of generated items are presented in Table 8 below.

Table 8: List of deleted items

Items no.	Items
3	Ethnicity/tribe
6	Religion
11	The first health facility that should be attended when sick is the PHC facility
18	General hospital has doctors
22	The PHC facility should be attended first before being referred to the general hospital
27	You prefer to be seen by a nurse
28	You prefer to be seen by a community health worker
34	General hospital has the needed equipment
36	You are able to get your test done at the general hospital
39	It was your personal decision to come to the general hospital
48	You have confidence in the general hospital
49	You receive better attention and care at the general hospital
52	It is more expensive coming to the general hospital*
55	PHC facility is below your social class
58	The general hospital is closer to where you live compared to the PHC facility
63	It is quicker to see a staff at the PHC facility

*Items for reverse scoring

Additional information provided on items 3 (Ethnicity / tribe) and 6 (religion) by one of the expert panelist was the need to consider the socio-demographic characteristics that other related studies have employed to enable the comparability of the findings. These were not identified as common socio-demographic variables used by other related studies; hence, they were deleted. Other items such as items 11, 22, 39, 52, 58 and 63 of the initial item pool had an item CVI of 1.00 but were also deleted because they were identified as having similar meaning with other items on the instrument. Several items were also revised (see Table 9) based on the advice of the expert panel due to being poorly worded, whilst others were revised as the items generally evolved.

Table 9: Lists of revised items

Items no.	Initial items	Revised
25	Staff in general hospital are mainly doctors	You are more likely to be seen by a doctor at the general hospital than at the PHC facility
26	You prefer to be seen by doctors	You prefer to be seen by doctors compared to nurses and CHWs
30	PHC facilities lack basic equipment	PHC facilities lack basic equipment compared to the general hospital
44	You don't have confidence in the PHC facilities	You have more confidence in the general hospital than the PHC facilities
46	You won't get the care you need at the PHC facilities	Healthcare services are better at the general hospital
51	It is cheaper to go to the PHC facility*	It is cheaper to go to the PHC facility for healthcare than to go to the general hospital*
53	You can afford the cost at the general hospital	You can afford the cost of healthcare services at the general hospital
54	General hospital is within your standard (social class)	General hospital is within your standard (social class) compared to the PHC facilities
57	You are more concerned about your health	You are more concerned about your health than the cost of care
62	The waiting time to see a doctor at the general hospital is longer*	The waiting time to see a doctor at the general hospital is longer compared to seeing staff at PHC facility*
64	You would rather wait to see a doctor no matter how long it takes, than go to the PHC facility	You would rather wait to see a doctor at the general hospital no matter how long it takes, than go to the PHC facility

*Items for reverse scoring

Despite some items having low scores, such as items 12, 13, 15, 16, 32 and 33 which had I-CVI of 0.75, 0.50, 0.50, 0.75, 0.25 and 0.25 respectively, they were still retained in the instrument. In addition, the items in the section on 'expectations of service users' also scored less than 1.00 but were still retained because they were identified as recurring qualitative findings that participants discussed.

Additional comment from the expert panel was the perception that the instrument generally appeared lengthy. However, as this was an initial generation of the pool of questions, it was expected that it would be scaled down appropriately based on the evaluation of the feedback

from the expert panel and the review of the pilot study that was to follow later (DeVellis, 2012). Accordingly, evaluation of the feedback from the expert panel led to the deletion of some of the items, revising and a general review of the instruments. Items were also renumbered and re-ordered (see the revised instrument used for the pilot study in Appendix 15). Therefore, the next stage that followed was piloting the revised instrument among self-referred service users.

7.3.5 Administer item to development sample (Pilot study)

Piloting a study ensures the tools are tested to understand how well they work in practice and if necessary to modify the plans (Blaxter, Hughes and Tight, 2010; Turner, 2010). The instrument can be tested, and feedback gained from the respondents to reflect on how they interpreted the questions (Brown and Dowling, 1998). This helps to also establish the content validity of the instrument and to improve the questions, format and scales (Creswell, 2014). Teijlingen and Hundley (2001) also cited some rationale for a pilot study which Thabane et al. (2010) broadly grouped into four categories. The first is *process,* which assesses the feasibility of the procedures that are important to the success of the main study. The second is the *resources* that deal with assessing the time and resource problems that can occur during the main study. The third is *management,* which encompass the potential human and data organisation problems, and finally, the fourth is *scientific* rationale. This deals with the assessment of the safety, dose and response of the intervention being instituted as applicable to the research. Nevertheless, Teijlingen and Hundley (2001) noted that conducting a pilot study does not necessarily guarantee success in the main study; however, it does increase the likelihood of success by providing valuable insights for researchers.

Turner (2010) also added that a pilot test should be conducted with participants that have similar interests to those who will participate in the implemented study. Accordingly, the pilot for this study was carried out at a secondary healthcare facility in Niger State. The facility was not part of the three selected facilities for the main study. Therefore, the sample population reflected that of the main study and the procedure was also a simulation of what was to be expected in the main study.

The developed instrument was piloted among a sample of twenty participants. Likewise, Hill (1998) commented that a sample size of 10 to 30 is deemed sufficient for a pilot study, as statistical significance is not the aim but rather the demonstration and prediction of how the instrument and procedure are likely to perform. Accordingly, the pilot study for the second objective (quantitative approach) of this research was set up with the following objectives in mind:

1) To test the instrument by ensuring potential participants understood the questions and appropriate answers were provided, which provided the opportunity for refining the instrument as indicated.
2) To prepare the researcher for the main study by making sure the researcher became familiar with the data collection procedure.
3) To ensure the potential research assistants understood the instrument and the data collection procedure.

7.3.5.1 First objective of the pilot study

This was to test the data collection instrument by ensuring the potential participants understood the questions and appropriate answers were provided, which allowed the opportunity to refine the instrument as indicated.

The findings in relation to this objective start with a description of the socio-demographic characteristics of the pilot participants. This is followed by a description of the internal reliability of the instrument. Each sub-scales of the instrument are then further discussed with revision made to the sub-scales.

7.3.5.1.1 Socio-demographic characteristics of the pilot participants

The pilot study for the second objective (quantitative approach) was not aimed at addressing sample representativeness or to provide statistical findings for generalisation, but rather to address possible practical issues that may arise during the main study. Accordingly, twenty service users who self-referred to the secondary healthcare facility participated in the pilot study. Fourteen females and six males completed the questionnaire; they were between 19 to 55 years of age. Eleven of the participants had a secondary level of education compared to the remaining nine participants that had a tertiary level of education. Six of the participants were single, while the other fourteen were married. The participants were of different occupations, such as civil servant, student, personal business, retired, unemployed, housewife and driver. Based on the wide variety of occupations identified among the participants, it was decided that the category of occupation would be reviewed to employment status with the options of 'Government employed', 'Non-government

employed' and 'Unemployed'. However, all the socio-demographic questions were well understood by the participants. See Table 10 below for representation of the socio-demographic characteristics of the participants for the pilot study.

Table 10: Socio-demographic characteristics of participants for the pilot study

S/No	Age (Years)	Gender	Marital status	Educational level	Occupation
1	22	Male	Single	Secondary	Unemployed
2	24	Female	Married	Secondary	Unemployed
3	26	Female	Married	Secondary	Unemployed
4	40	Female	Married	Secondary	Government employed
5	24	Female	Single	Tertiary	Unemployed
6	20	Female	Married	Secondary	Unemployed
7	55	Female	Married	Tertiary	Unemployed
8	23	Male	Single	Tertiary	Unemployed
9	48	Female	Married	Tertiary	Government employed
10	35	Male	Married	Secondary	Non-government employed
11	19	Male	Single	Secondary	Unemployed
12	20	Female	Single	Secondary	Unemployed
13	30	Female	Married	Secondary	Non-government employed
14	22	Female	Married	Tertiary	Unemployed
15	25	Female	Single	Tertiary	Unemployed
16	35	Male	Married	Secondary	Government employed
17	35	Male	Married	Tertiary	Government employed
18	24	Female	Married	Secondary	Unemployed
19	26	Female	Married	Tertiary	Unemployed
20	30	Female	Married	Tertiary	Government employed

7.3.5.1.2 Internal reliability

This indicates how consistently all the items in a scale measure the concept in the question they are designed to address (Howitt and Cramer, 2005). Factors such as the clarity of the operational definition of the items and the number of scale items on which the scale score is

based are said to contribute to the reliability of an instrument (Graziano and Raulin, 2004). Nevertheless, several methods are identified for calculating the internal reliability of a scale. These include split-half reliability, item-item, alpha reliability (Cronbach's alpha) and item-total reliability (Bowling, 2009; Howitt and Cramer, 2005). However, Cronbach's alpha is said to provide the best overall picture of internal reliability. This is because it generates an estimate of reliability based on all possible correlations between all the items within the scale. The values range between 0 to 1 (Bowling, 2009). A guide provided for the cut-off points for reliability by Hinton et al. (2004) are; .90 and above, representing excellent reliability, .70 to less than .90 shows good reliability, .60 to less than .70 is acceptable reliability, .50 to less than .60 is regarded as poor reliability and less than .50 is regarded as unacceptable reliability.

Bowling (2009), however, noted that there is no consensus agreement over the minimum acceptable value for Cronbach's alpha regarding scale reliability. Bowling further argued that while some authors regard .70 as the minimal level of internal consistency reliability of a scale, others accept .50 as an indicator of good internal consistency, especially for short sub-scales.

Cronbach's alpha for each sub-scale of the instrument used in the pilot study is further discussed in Section 7.3.5.1.3. Table 11 below presents a summary of Cronbach's alpha for each sub-scale and the number of items in the sub-scale of the revised instrument after the pilot. The symptom/s, duration and severity items had no Cronbach's alpha because they were single items measuring the construct. See Appendix 22 for the revised questionnaire for the main study after the pilot study.

Table 11: Summary of the revised sub-scales with their corresponding Cronbach's alpha.

Sub-scales	Variable measured	Number of items in instrument for the main study	Cronbach's alpha
Predisposition to self-refer			
Understanding of healthcare delivery in Nigeria	Understanding of the roles of the PHC and secondary healthcare facilities by service users	11	.717
Enablers to self-refer			
Role of healthcare providers	Service users' perceptions of healthcare providers in the PHC facilities	5	.677
Role of equipment/facilities	Service users' perceptions of facilities in the PHC facilities	4	.718
Advice from friend, relatives and others	Advice to service users on utilisation of healthcare facilities	4	.604
Access	Service users' ability to access the secondary healthcare facility	5	.656
Needs to self-refer			
Symptom/s	Problem that prompted the service-user to seek care at the referral facility	1	-
Duration	Duration of the symptom/s that has elapsed before the service user sought care at the referral facility	1	-
Severity	The perception of the severity of the symptom/s that has prompted the service user to seek care at the referral facility	1	-

7.3.5.1.3 Sub-scales of the data collection instrument

This section addresses the revision made to the sub-scales and items. It also presents the internal consistency (Cronbach's alpha) of the sub-scales, as applicable.

7.3.5.1.3.1 Sub-scale: Understanding of healthcare delivery in Nigeria

Participants were asked to indicate their level of agreement with the different items of the sub-scale on a five-point Likert scale by selecting either "strongly agree, agree, not sure, disagree or strongly disagree" which corresponded to a score of 1, 2, 3, 4 and 5 respectively. A low score corresponded to poor understanding of the healthcare delivery in Nigeria.

Items in this sub-scale were initially separated into understanding the role of PHC and SHC (Secondary Healthcare); however, these were subsequently merged because it was observed that the sub-scale had related items. During the pilot it was noted that participants had difficulty comprehending item 8, "PHC facilities should be close to the people". This was rephrased as "PHC facilities should be available where people live*". In addition, item 17 "General hospital which serves the same purpose as the PHC facilities" was deleted from the sub-scale because it had a major contribution to the low internal consistency of the items in the sub-scale. Consequently, on deletion of the item, a Cronbach's alpha of .717 was achieved. This meant that the remaining items in the sub-scale were internally consistent. See Table 12 below for the sub-scale items.

Table 12: Understanding of healthcare delivery in Nigeria

PILOTED ITEMS	REVISED AND RETAINED ITEMS
6-PHC facilities are only for minor cases*	PHC facilities are only meant for minor cases*
7-PHC facilities are meant for poor people	PHC facilities are meant for poor people
8-PHC facilities should be close to people*	PHC facilities should be available where people live*
9-PHC facilities are only meant for immunisation of children	PHC facilities are only meant for immunisation of children
10-PHC facilities are only meant for pregnant women	PHC facilities are only meant for pregnant women
11-PHC facilities are not important in providing healthcare	PHC facilities are not important in providing healthcare
12-PHC facilities should only be used when there is no general hospital	PHC facilities should only be used where there is no general hospital
13-PHC facilities should only be used when the general hospitals are overcrowded	PHC facilities should only be used when the general hospitals are overcrowded
14-General hospitals have better equipment*	General hospitals have better equipment compared to the PHC facilities*
15-General hospital attends to more serious medical conditions than the PHC facilities*	General hospital attends to more serious medical conditions compared to the PHC facilities*
16-The first health facility that should be attended when a person is sick should be the general hospital	The first health facility that should be attended when a person is sick should be the general hospital
17-General hospital serves the same purpose as the PHC facilities	

*Items were reverse scored

7.3.5.1.3.2 Sub-scale: Role of healthcare providers

Participants identified their level of agreement with each of the five statements in this sub-scale by selecting from the options, “strongly agree, agree, not sure, disagree and strongly

disagree". The options were scored 1, 2, 3, 4 and 5 respectively. A low score corresponded with service users' negative perception of the healthcare providers in the PHC facilities.

The term 'diagnosis' used in item 19: "You may be given a wrong diagnosis by staff in the PHC facilities" was reworded, due to the difficulty some participants experienced in comprehending the term. Item 19 was subsequently rephrased as, "Staff in PHC facilities may not know what is wrong with you". The Cronbach's alpha for this scale was .677 which is within the acceptable range of .60 to .70, See Table 13 below for the sub-scale items.

Table 13: Items of sub-scale on the role of healthcare providers

PILOTED ITEMS	REVISED AND RETAINED ITEMS
18-Staff in PHC facilities do not have much medical knowledge	Staff in PHC facilities do not have much medical knowledge
19-You may be given a wrong diagnosis by staff in the PHC facilities	Staff in PHC facilities may not know what is wrong with you
20-You are more likely to be seen by a doctor at the general hospital than at the PHC facility	You are more likely to be seen by a doctor at the general hospital than at the PHC facility
21-You prefer to be seen by doctors compared to nurses and CHWs	You prefer to be seen by doctors compared to nurses and CHWs
22-You will attend PHC facilities only if they have doctors	You will attend PHC facilities only if they have doctors

7.3.5.1.3.3 Sub-scale: Role of equipment/facilities

Participants were asked to identify their level of agreement with the five items developed for this sub-scale by choosing from the options "strongly agree, agree, not sure, disagree and strongly disagree" with the options scored 1, 2, 3, 4 and 5 respectively. A low score corresponded to service users'negative perceptions of facilities in the PHC facilities.

It was observed that item 27, “You prefer to have a test completed before getting medication” performed poorly among the other items in the sub-scale; thus, this item was deleted from the sub-scale. After deleting item 27, the Cronbach’s alpha improved from .599 to .718, which showed that the remaining items were internally consistent. See Table 14 below for the sub-scale items.

Table 14: Items of sub-scale on the role of equipment/facilities

PILOTED ITEMS	REVISED AND RETAINED ITEMS
23-PHC facilities lack basic equipment compared to the general hospital	PHC facilities lack basic equipment compared to the general hospital
24-You can’t get your test conducted in PHC facilities	You can’t get your test conducted at PHC facilities
25-PHC buildings do not look good and are old	PHC buildings not look good and are old
26-PHC facilities are mostly dirty	Most PHC facilities are dirty
27-You prefer to have a test completed before getting medication	

7.3.5.1.3.4 Sub-scale: Advice from friends, relatives and others

Participants were also asked to choose from the option “strongly agree, agree, not sure, disagree and strongly disagree” to indicate their level of agreement with the items in this sub-scale. The options were scored 1, 2, 3, 4 and 5 respectively. Six items were developed for this sub-scale. It was noted that item 31, “You don’t know of the PHC facilities around where you live” and item 44, “The PHC facility is closer to where you live compared to the general hospital” (item 44 is under the sub-scale of access) were related; therefore item 31 was deleted from this sub-scale. A low score indicated that participants were poorly advised/ aware on utilisation of healthcare facilities. On computing the reliability statistics for this sub-

scale, it was also observed that item 33, “You don’t think the PHC facility is a place you should go to” performed poorly among the other items in the sub-scale; consequently, it was deleted. Cronbach’s alpha improved from .561 to .604, which is within an acceptable range. See Table 15 below for the sub-scale items.

Table 15: Items of sub-scale on advice from friends, relatives and others

PILOTED ITEMS	REVISED AND RETAINED ITEMS
28-You know of the services provided in the general hospital that’s why you came down to the general hospital	You know of the services provided at the general hospital that’s why you came down to the general hospital
29-You were advised to come to the general hospital by your friends/relatives	You were advised to come to the general hospital by your friends/relatives
30-You know some of the staff in the general hospital	You know some of the staff at the general hospital that’s why you came down to the general hospital
31-You don’t know of the PHC facilities around where you live	
32-You need more information about the services provided by the PHC facilities	You need more information about the services provided by the PHC facilities
33-You don’t think the PHC facility is a place you should go to	

7.3.5.1.3.5 Sub-scale: Expectations of service users

Participants also identified their level of agreement with each of the five items developed for this sub-scale from the options ranging from “strongly agree, agree, not sure, disagree and strongly disagree”, which had a corresponding score of 1, 2, 3, 4 and 5 respectively. A low score on the sub-scale denoted a higher expectation from the healthcare system. Cronbach’s alpha for this sub-scale was found to be .433, which depicted a poor internal consistency

among the items, suggesting that the items were not consistently measuring the same construct. Based on the very low Cronbach's alpha and limited resources to further modify and test the items in this sub-scale, it was decided that this sub-scale would be excluded from the main study. See Table 16 below for the sub-scale items.

Table 16: Items on sub-scale related to service user expectations

PILOTED ITEMS	REVISED AND RETAINED ITEMS
34-You have more confidence in the general hospital than the PHC facilities	
35-Going to PHC facility is a waste of time	
36-Healthcare services are better at the general hospital	
37-PHC staff don't have the right attitude towards their patients	
38-There is a need for better supervision of the PHC facilities to be able to provide the required services	

7.3.5.1.3.6 Sub-scale: Access

Participants identified their level of agreement with the ten items in this sub-scale by selecting an option from "strongly agree, agree, not sure, disagree and strongly disagree", which had acorresponding score of 1, 2, 3, 4 and 5 respectively. A low score corresponded to the perception of having better access to the secondary healthcare facility.

During the pilot of the instrument, it was observed that item 41, "General hospital is within your standard (social class) compared to the PHC facilities", 42 "You are less concerned about the cost of care at the general hospital" and 43 "You are more concerned about your health

than the cost of care", were poorly understood by most participants, most likely due to being poorly worded and moreover, as the questions appeared related to item 40, "You can afford the cost of healthcare services at the general hospital". Therefore, the three items were deleted from the sub-scale. While item 47, "The waiting time to see a doctor at the general hospital is longer compared to seeing staff at the PHC facility*" and 48 "You will rather wait to see a doctor at the general hospital no matter how long it takes than go to the PHC facility" performed poorly among the other items in the sub-scale for the internal reliability of the sub-scale. This resulted in a Cronbach's alpha of .599, on deletion of the two items the Cronbach's alpha improved to .656. In addition, item 39 and 44 were rephrased. See table 17 below for the sub-scale items.

Table 17: Items of sub-scale on access

PILOTED ITEMS	REVISED AND RETAINED ITEMS
39-It is cheaper to go to the PHC facility for healthcare than coming to the general hospital	It is cheaper to go to the general hospital for healthcare than going to the PHC facility
40-You can afford the cost of healthcare services at the general hospital	You can afford the cost of healthcare services at the general hospital
41-General hospital is within your standard (social class) compared to the PHC facilities	
42-You are less concerned about the cost of care at the general hospital	
43-You are more concerned about your health than the cost of care	
44-The PHC facility is closer to where you live compared to the general hospital	The general hospital is closer to where you live compared to the PHC facilities
45-PHC facilities have irregular opening hours	PHC facilities have irregular opening hours which discourages you from attending
46-General hospital is open 24 hours a day	General hospital is open 24 hours a day, which encourages you to attend
47-The waiting time to see a doctor at the general hospital is longer compared to seeing staff at the PHC facility*	
48-You would rather wait to see a doctor at the general hospital no matter how long it takes than go to the PHC facility	

7.3.5.1.3.7 Sub-scale: government regulations (policies)

Participants suggested their level of agreement with the five statements in this sub-scale by choosing an option from "strongly agree, agree, not sure, disagree and strongly disagree", which were correspondingly scored as 1, 2, 3, 4 and 5 respectively. A low score for the sub-scale indicated a positive perception of policies in regulating healthcare self-referral.

The internal consistency of the items in this sub-scale was found to be poor, resulting in a Cronbach's alpha of .459. Based on the low Cronbach's alpha and due to the limited resources to further modify and test the items in the sub-scale, it was excluded from the instrument for the main study. See Table 18 below for the sub-scale items.

Table 18: Items of sub-scale on government regulations (policies)

PILOTED ITEMS	REVISED AND RETAINED ITEMS
49-A strict rule should be in place for patients to use the PHC facility first before going to the general hospital*	
50-You will support any rule encouraging the use of PHC facilities*	
51-PHC facilities should operate at an appreciable standard before enforcing any rule to use the PHC*	
52-You will go to the PHC facility if a fine was placed on those coming directly to the general hospital*	
53-You would rather pay the fine than go to the PHC facility	

7.3.5.1.3.8 Medical symptoms

Participants were asked directly what the problem was that prompted them to present to the general hospital. The question was evident to all participants. Although this generated a wide variety of symptoms ranging from fever, headache, abdominal pain, dysentery, leg pain, vomiting and body weakness. Based on this, it was decided that at the end of the data collection for the main study, the symptoms would be grouped into body systems, for example cardio-respiratory symptoms, gastrointestinal symptoms, genito-urinary symptoms, musculoskeletal symptoms and others, which is similar to other related studies, such as Sempere-Selva et al. (2001) and Kangovi et al. (2013).

7.3.5.1.3.9 Duration of medical symptoms

Participants were also asked the duration of their symptoms based on related literatures. This was grouped into less than a day, 1 to 7 days, over a week to 2 weeks and greater than 2 weeks (Alyasin and Douglas, 2014; Kahabuka et al., 2011; Dolan and Dale, 1997). This question also appeared clear to the participants.

7.3.5.1.3.10 Severity of medical symptoms

Participants were asked to identify the level of severity of their symptoms, ranging from “very mild, mild, moderate, severe and very severe”. These were respectively assigned the value of 1, 2, 3, 4 and 5. Likewise, no ambiguity was noted by the participants in answering this question.

7.3.5.2 Second objective of the pilot study

The second objective of the pilot study was intended to prepare this researcher for the main study by making sure he became familiar with the data collection procedure.

Participants were recruited at the General Out-Patient Department (GOPD) as planned, based on the study's inclusion and exclusion criteria (see Section 7.4 for the inclusion and exclusion criteria). They were recruited from the record office immediately a folder was opened for them. Participants were subsequently informed about the research, and for those that showed interest in participating; the information sheet was handed to them to go through. This was followed by gaining their consent by signing the consent form. The structure of the questionnaire was explained to the participants. Additionally, they were also shown how they were to answer the questions, which meant that the researcher was to read out a series of questions and options from which they were to select their choices.

It was observed that the researcher had occasionally divided attention between recruiting and interviewing the potential participants, as a few of the potential participants who met the inclusion and exclusion criteria presented to the GOPD simultaneously. However, the plan was to avoid this occurrence in the main study by the involvement of two research assistants in each facility, whereby one person undertook the recruitment and the other conducted the interviews with the participants based on the influx of the patients that met the criteria.

Overall the data collection procedure was effective. At the end of the interview with the participants, they were asked if they had any comments about the questionnaire, such as

questions they found difficult to answer and furthermore, about the length of the questionnaire. The overwhelming response by majority of the participants was that the instrument appeared very lengthy for them. They were reassured that this was a pilot and the amendments required would be made to the instrument as appropriate, based on the findings from the pilot study. The length for completing the questionnaire ranged from 14 to 40 minutes with an average of approximately 20 minutes.

The participants were subsequently thanked for their time and informed that if they had any further questions at any point, they could contact the researcher whose details were provided on the information sheet.

7.3.5.3 Third objective of the pilot study

The third objective was to ensure that the potential research assistants understood the instrument and the data collection procedure. The post for the research assistant was advertised (see Appendix 24) via notice boards at the three facilities selected for the main study. Word of mouth was also used to inform individuals who possibly knew people that would be able to fill those positions.

The criteria for the research assistants were individuals with a tertiary level of education, individuals able to communicate freely with people and also interested in contributing their time to the data collection. There was also a need to have a blend of male and female research assistants (two research assistants) in each of the facilities, so that in situations where a

participant was more comfortable with the same gender it would be easier to address that concern. It was also necessary for the research assistants to come from the locality where the study was being carried out. Apart from saving logistics costs, they were also likely to be familiar with the nuances of the people (Bowling, 2009). Staff of the facilities where the study was to be conducted were excluded from the role of research assistants to avoid any sense of compulsion on the part of the service users to participate in the research.

The researcher was contacted by potential research assistants through the phone numbers provided in the advertising poster while still in the UK. The researcher subsequently kept contact with the potential research assistants by informing each one about the study and when the pilot and main study was likely due.

On receiving approval from the ethics committee of the Institute for Health Research (IHR), University of Bedfordshire and the National Health Research Ethics Committee (NHREC), Nigeria for the pilot (see Appendices 18 and 20 respectively for the ethics approval for the pilot). Different dates were scheduled for the meetings with the potential research assistants at the different general hospitals. The meetings with the potential research assistants began at the facility in Wushishi and were held on 27th and 28thSeptember 2016, followed by the facility at Lapai on the 29th and 30th September 2016 and finally, Tafa on the 4th and 5th October 2016. Two days were allocated for the meetings at each of the facilities with the potential research assistants.

The first day of the meeting involved explaining to the research assistants what the study comprised. This entailed the inclusion and exclusion criteria of the participants. They were also informed of the research procedure, which involved how to go about recruiting the potential participants from the GOPD, how to explain the purpose of the study to the potential participants, handing out the information sheets and taking informed consent. Explanation of how to answer the questionnaire was also discussed with the potential participants. Each item on the questionnaire was also explained to the research assistants to make sure they understood what it was attempting to address. This is in line with Bowling's (2009) recommendation for the training of interviewers (research assistant). Additionally, a character reference was also obtained from each of the potential research assistants to attest to their good moral standing.

Generally, the material was well comprehended by the research assistants; however, one area highlighted on the questionnaire by one of the research assistants was the layout of the section on 'need factors'. This was reported as a bit confusing due to numbering of the items not on the same level; this was acknowledged and was addressed in the final draft of the questionnaire for the main study.

The second day of the meeting was meant for the potential research assistant to personally try the instrument on the service users. This was generally straightforward for the research assistants. However, one of the difficulties encountered by one of the research assistants was his inability to persuade one of the service users to participate in the research. He stated that the service user told him, he was not interested in the research and that his reason for coming

to the hospital was 'to see the doctor'. Consequently, the researcher reassured the research assistant that these sorts of responses should be expected, because not all potential participants will want to participate in the research. Additionally, the researcher also re-iterated the fact that participation was voluntary which was why the consent form was included in the procedure but that they should however ensure a friendly disposition towards the service users.

There was also a plan to remunerate the research assistants at the end of the data collection for the main study. The plan was to offer the research assistants some money (roughly £40 each) on completion of the data collection as an appreciation for their time. Table 19 below presents the demographic characteristics of the research assistants that were recruited.

Table 19: Summary of research assistants

S/No	Area of facility	Age (years)	Gender	Level of education
1	Wushishi	40	Male	Tertiary
2	Wushishi	43	Female	Tertiary
3	Lapai	41	Male	Tertiary
4	Lapai	40	Female	Tertiary
5	Tafa	33	Male	Tertiary
6	Tafa	24	Female	Tertiary

7.3.5.4 Lessons learnt from the pilot

Ethics application

In addition to the early ethics application, the researcher learnt how important it was to follow up one's ethics application. The researcher waited for two weeks to elapse after the

ethics application for the pilot study had been submitted and contacted the ethics committee of the Institute for Health Research (IHR) who subsequently, granted their approval. The researcher also followed up the ethics committee of the National Health Research Ethics Committee (NHREC), Nigeria and was informed that the protocol that was sent to them appeared as blank pages. It should be mentioned that throughout this period, there was no reply from the NHREC, Nigeria ethics committee to inform the researcher about this development. This necessitated him sending another copy of the protocol to the committee which took an additional two weeks prior to approval being granted.

Gatekeepers

Establishing a good rapport with the gatekeeper of the facility where the pilot was conducted also proved crucial to the success of the pilot. Though, approval was granted for this research, to use any of the facilities in Niger State by the Hospital Management Board (HMB) throughout the period of the research, the researcher contacted one of the secondary healthcare facilities that was not part of the facilities selected for the main study of this research. The gatekeepers of the secondary healthcare facility in Bida allowed the researcher to use their facility for the pilot study. Consequently, the researcher made sure he was in constant contact with the gatekeepers, updating them of the plan which made it easier for him to gain access to the facility. On arrival at the facility on 20th September 2016 at about 10:30 am, the researcher met the gatekeeper who was very receptive and showed the researcher where to go to for the data collection.

Recruitment

The recruitment procedure generally proved effective during the pilot except for the fact that the researcher was alone which led to divided attention between recruiting and completion of the questionnaire with the participants. As highlighted previously, this problem was avoided in the main study by using two research assistants at each site of the three selected facilities.

The researcher also noted the importance of starting the day early. It took three days (20th September to 22nd September 2016) to recruit the needed twenty participants for the pilot. Due to logistic reasons the data collection for the first two days started at about 11:00 am which reflected on the number of participants the researcher was able to recruit to complete the questionnaire. On the first day, six participants completed the questionnaire, whereas four participants completed the questionnaire on the second day. On the third day, the researcher arrived at the facility at approximately 8:00 am and was able to recruit the ten remaining participants required to complete the questionnaire.

Instrument

The time taken to complete the questionnaire was perceived as very lengthy for most participants. Accordingly, from the findings of the pilot several questions were removed from the instrument either due to poor comprehension of the items or the items performed poorly in the internal consistency related to their sub-scale. Therefore, the number of items was reduced from 56 to 37.

The items on the data collection instrument were also generally clear to the participants except for a few items which were addressed in the respective sections of the instrument sub-scales. However, another observation was that participants frequently asked for the options on the level of agreement of the sub-scales to be repeated. To address this, it was decided that a list of the options on the level of agreement and level of severity would be boldly written out on a separate sheet of paper to be handed out to the participants, so that they can easily look at and select their options while the interviewer reads out the statements. See Appendix 23 for the level of agreement options that was presented to the participants as a visual aid.

7.4 Data collection

The importance of considering the possible options for administering a questionnaire cannot be over emphasised. It is vital to take into consideration the advantages and disadvantages of the different forms of quantitative data administration as it applies to one's research (Bryman, 2012). For example, the self-administered form of a questionnaire is time saving, it can be distributed by post and in large numbers. Its disadvantages are that it has a low response rate, issues of incomplete questions and the potential for respondents to misunderstand the questions (Bowling, 2009). In the mailed questionnaire, interviewer bias is eliminated but it has a low return rate, whilst there could also be misinterpretation of questions too (New Jersey City University, 2014). One potential problem for telephone administration of a questionnaire is that significant selection bias may be generated by including only individuals with a telephone (U.S. Department of Health and Human Services, 2003). Though an interviewer administered questionnaire requires an interviewer, time and

resources, the advantages is that it has a higher response rate, it can collect more information from each respondent and enables more complex or sensitive issues to be addressed (Wilkin, Hallam and Doggett, 1992).

Therefore, taking into context the setting of this research where the cost of making a telephone interview was likely to be too expensive for the researcher and the postal system would not have been convenient due to the lack of proper mapping of residences and an inefficient postal system. The interviewer (face-to-face) administered questionnaire was deemed to be more appropriate for this study based on the advantages and disadvantages mentioned above. In line with this, the researcher and six research assistants (two for each of the three selected facilities) helped with completion of the questionnaires with the service users in the three selected secondary healthcare facilities. All the questionnaires were completed in English language.

Data collection was planned such that one facility started a day before the second healthcare facility and the third healthcare facility subsequently started a day after the second healthcare facility had started. This was so that the researcher could be present at each facility on the day the data collection commenced, so that he could monitor and give advice, where necessary. This also ensured the uniformity and reliability of the data collection. The researcher alternated between the three facilities during the period of the data collection. The data collection was subsequently completed within a period of 25 days (started 30th of January and ended on the 23rd of February 2017).

7.5 Quantitative data analysis

Descriptive and inferential statistics was employed to analyse the data. The descriptive analysis helped to provide a general description of the data. This allowed the delineation of fine variation in the answers and between populations in terms of their characteristics (Bryman, 2012). The inferential statistics allowed a conclusion to be reached that extended beyond the immediate data alone, making judgments of the probability that an observed association or difference between groups was a dependable one, or one that might have occurred by chance in the study (Trochim, 2006). Accordingly, the inferential statistics helped to address the hypotheses developed for this study. Moreover, SPSS software (version 22) was used to manage the data and conduct the analysis for the quantitative data.

7.6 Sampling and population

Sampling provides the benefit of reducing time spent on research, lesser resources and ensures better qualities of data are collected instead of evaluating the entire population (Bowling, 2009). Probability or random sampling provides each of the units in a population with a chance of being selected. However, it is a tedious technique, time consuming and may not be cost effective when compared to non-random (non-probability) sampling. Non-random sampling is nevertheless a subjective selection of participants and more prone to bias (Graziano and Raulin, 2004). The rationale behind using probability sampling is to generate a sample that is representative of the population in which it was drawn, and which fits with quantitative method. However, this does not guarantee that every random sample perfectly represents the population, but instead that most random samples will be close to the population most of the time (California State University, Northridge 2010).

Accordingly, the simple one-stage cluster randomised sampling technique was employed for Objective 2 (quantitative approach) of this study. This was an extension of the technique used in sampling the three secondary healthcare facilities that were utilised for Objective 1 of this study. In simple one-stage cluster sampling, random samples of clusters are selected, and data are collected from all members of the selected clusters included in the sample (Latham, 2007). The advantages of this sampling technique are its economic nature when compared with other forms of random sampling and that it is also suitable for a survey of institutions such as schools, hospitals and other related organisations. However, the weakness lies in the fact that the diversity of the community may not be reflected (Bowling, 2009).

As earlier presented in Section 4.4, Niger State is composed of twenty-five local government areas. Like any other state in Nigeria, it is also segmented into three senatorial districts (clusters) with different numbers of Local Government Areas (LGA) in the three senatorial districts. A comprehensive list of the secondary healthcare facilities (eighteen general hospitals) and their LGA in Niger State was compiled (See Table 1 in Section 4.4). One local government area with a secondary healthcare facility (general hospital) was then randomly selected from each of the three senatorial districts through balloting (See Figure 11 below). All self-referred service users presenting to the three selected healthcare facilities during the period of the quantitative phase of this study were recruited with the aim of achieving the desired sample size needed. The inclusion and exclusion criteria listed below were used to recruit the desired participants. This contrasted with Objective 1 (qualitative approach) where the service users were recruited from the selected healthcare facilities using a purposive maximum variation sampling technique based on age and gender. Participants were recruited from the record office at the hospital on their arrival. They were subsequently interviewed

while waiting for their consultation with the doctors at the General Out-Patients Department (GOPD).

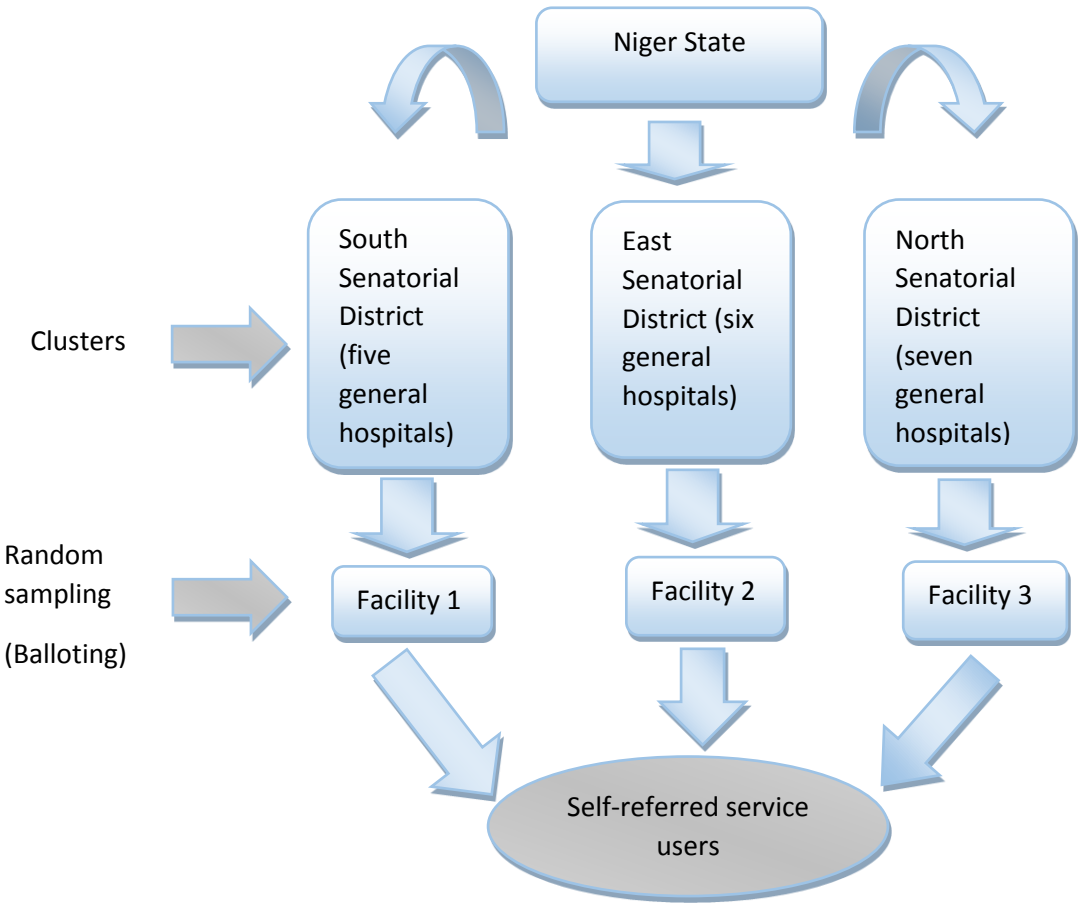


Figure 11: Single stage cluster randomise sampling of self-referred service users.

The inclusion and exclusion criteria for participation in the study;

Inclusion:

- Service users who self-refer to the General Out-Patients Department (GOPD) of the secondary healthcare facilities were the participants of interest for this research.
- Participants were 18 years and above (able to consent to participate in the research).
- Participants who understood and spoke English.

- Potential service users who participated in the qualitative approach (Objective 1) of this research were included if they were self-referring to the hospital with a new symptom and not based on follow up from their previous illness. No major extraneous variable was anticipated by including them.

Exclusion:

- Service users on follow up appointment were excluded.
- Referred service users (verbal or written referral) were also excluded because they had passed through the referral pathway.
- Service users below 18 years were excluded.
- Patients who were unable or found it difficult to hold a conversation due to their ill health (this included semi-conscious and unconscious patients and patients who directly objected to participate due to their health conditions) were also excluded.
- Patients on the wards and emergency unit were excluded.
- Service-users who could not understand or speak English were excluded.

Overview of the selected facilities

Lapai, Wushishi and Tafa general hospitals were the secondary healthcare facilities selected for the main study. They offer general surgical, internal medicine, paediatrics, obstetrics and gynaecology services. In addition to these, Tafa and Lapai general hospitals also provide dental services. The bed capacity for these hospitals ranged from eighty to one hundred beds. Lapai, Wushishi and Tafa general hospitals serve a population of approximately 110,000, 81,723 and 84,000 respectively (Niger State Planning Commission, 2011b). The GOPD average

patients visit per month ranges from 1000 to 1200 for Lapai general hospital, 800 to 900 for Wushishi general hospital, while Tafa general hospital has a range of about 1600 to 1800 new cases per month. The average referrals received by these facilities per month are reported to be between 0.5-2% of the population of the new cases. The General Out-Patients Department (GOPD) consultation operates between 8:00 am to 14:00 pm, although this usually extends beyond the stipulated time depending on the workload of the staff (Lapai General Hospital Record Office, 2016; Tafa General Hospital Record Office, 2016; Wushishi General Hospital Record Office, 2016).

7.7 Sample size

Decision regarding sample size in a quantitative study depends on a number of considerations, such as time, cost and the need for precision (Bryman, 2012). Davis, Gallardo and Lachlan (2010) pointed out that there is a limit to how large one can make their sample due to practical considerations, nonetheless, the sample should be just large enough to have the statistical power it needs. However, various approaches to determine sample size have been suggested; these include the use of published tables, using a census for small populations, adopting a sample size from similar studies, along with applying formulas to calculate the desired sample size (Israel, 2003). A popular formula for calculating sample size is the Yamane formula (1967), which is $n= N/1+N (e)^2$

Where, n= sample size

N=population size

e=level of precision

The Yamane formula (1967) was employed to calculate the sample size for this study, where the confidence level was set at 95% and at an error factor (precision level) of +/-5%. Based on Niger State's estimated population of 3,950,249 with reference to the 2006 Census (Niger State Planning Commission, 2011a) and because most of the populations are likely to attend the secondary healthcare facilities for care. The sample size was calculated as;

$n= 3,950,249/ 1+ 3,950,249 (0.05)^2$

3,950,249/9,877= 400

Therefore, 450 self-referred participants were sampled for the quantitative phase of this study which resulted in 150 participants being recruited from each of the three selected secondary healthcare facilities.

7.8 Ethical consideration

Likewise, as for the qualitative phase of this study, ethical approval was granted by the Institute of Health Research Ethical Committee (IHREC) (Ref. number: IHREC693), University of Bedfordshire (see Appendix 19) and the National Health Research Ethical Committee (NHREC) in Nigeria (Ref. number: NHREC/01/01/2007) (see Appendix 21).

Similar ethical considerations as indicated in the qualitative phase of this study also applied to the quantitative aspect of this study. Potential participants that were very sick and those who were too weak to communicate due to their ill health were excluded to avoid increasing their level of discomfort. Thus, generally, participants were made aware that their participation was voluntary which was also emphasised on the information sheet provided to

the participants. Therefore, refusal to participate in the research was not going to affect the usual care they receive from the facilities. The issue of power imbalance was also considered where the researcher made the participants aware that he is a student, and the research assistants introduced themselves as such to the participants. This prevented the service users from feeling coaxed or under undue pressure to participate in the research.

Participation in this research was predominantly voluntary. Therefore, an information sheet (see Appendix 16 for the information sheet related to the quantitative approach) regarding the research was made available to the participants, which ensured that the participants understood what the research entailed. The consent of the participants was subsequently sought by signing a consent form (see Appendix 17) prior to participating in the research. Another ethical consideration for the second objective of the study was protecting the anonymity of the participants. Therefore, all the answered questionnaires were identified with unique identification numbers (anonymised). The completed questionnaires were kept separately and securely from the electronic copy that was entered into the SPSS software, which was password protected. Apart from the researcher, restricted access was only granted to the supervisory team. This document will be subsequently destroyed on completion of this research. Additionally, there was no hazard or risk that resulted from participating in this study throughout the data collection and analysis period.

7.9 Summary

Eight hypotheses were developed from the qualitative findings and literatures. A quantitative data collection tool was also developed. The tool was subsequently piloted to ensure the

comprehension of the items and for practical methodological reasons. Accordingly, the amendments required for the tool related to the main study were conducted. Also discussed in this chapter were the data collection, sampling, data analysis and ethical considerations for the main study of Objective 2. The findings and discussion of the findings from Objective 2 are presented in the following chapter.

8.0 Chapter Eight: Findings and Discussion for Objective 2

8.1 Introduction

The previous chapter provided a detailed description of the different methods employed to address the second objective of this study. This was to examine the relationships between the identified factors that influence the decision to self-refer among the self-referred service users.

The findings presented in this chapter begin by providing the general outcome of the recruitment of the participants, which also highlights the response rate. It also presents the normality assumption of the summated sub-scales to ascertain the inclination to either a parametric or non-parametric test. An explanation is also offered regarding the recoded variables. Descriptive analysis of each sub-scale and the inferential findings based on the developed hypotheses are also provided. Finally, the subsequent sections of this chapter discuss the findings in relation to the literatures.

8.2 Recruitment outcome

During the period (30th of January to 23rd of February 2017) of the data collection for the second objective (quantitative approach) of this study, 2539 patients presented to the GOPD of the three selected secondary healthcare facilities. Table 20 provides a breakdown of the recruitment of participants from the three selected facilities, based on the inclusion and exclusion criteria outlined in Section 7.4. Excluded from the total sample were 64 patients referred to the three selected facilities and 805 patients who presented for follow up care.

Approximately 537 self-referred patients below the age of 18 years were also excluded from this study. Also excluded were 591 patients who self-referred but were unable to speak English. Ninety-two eligible patients declined participating in the study, most stating they were too ill to participate, while others stated they were not interested in the study. Therefore, 450 participants provided their responses to the questionnaire; however, one of the completed questionnaires was excluded due to the omission of an entire page of questions (eight questions). This was likely an oversight from the interviewer. Thus, a total of 449 questionnaires were entered for the analysis. As 450 participants finally completed the questionnaire from an eligible sample of 542 patients, the response rate achieved was 83% (450/542 x 100= 83%). Figure 12 reveals a flow chart of the participant's recruitment.

Table 20: Breakdown of participant's recruitment and responses from the three selected facilities

Criteria for inclusion and exclusion	**Facility 1**	**Facility 2**	**Facility 3**	**Total**
Total number of patients during the research period	974	657	908	2539
Number of patients referred **(excluded)**	26	6	32	64
Number of patients on follow up **(excluded)**	325	119	361	805
Number of self-referred patients	623	532	515	1670
Number of patients self-referred less than 18 years of age **(excluded)**	221	138	178	537
Number of patients self-referred unable to speak English **(excluded)**	198	223	170	591
Number of patients self-referred who spoke English	204	171	167	542
Number of patients self-referred who spoke English but declined to participate **(excluded)**	54	21	17	92
Final responses from the self-referred participants entered for analysis	150	150	150 (One questionnaire was not completed correctly and thus excluded, leaving 149 completed questionnaires entered for analysis from this facility)	449

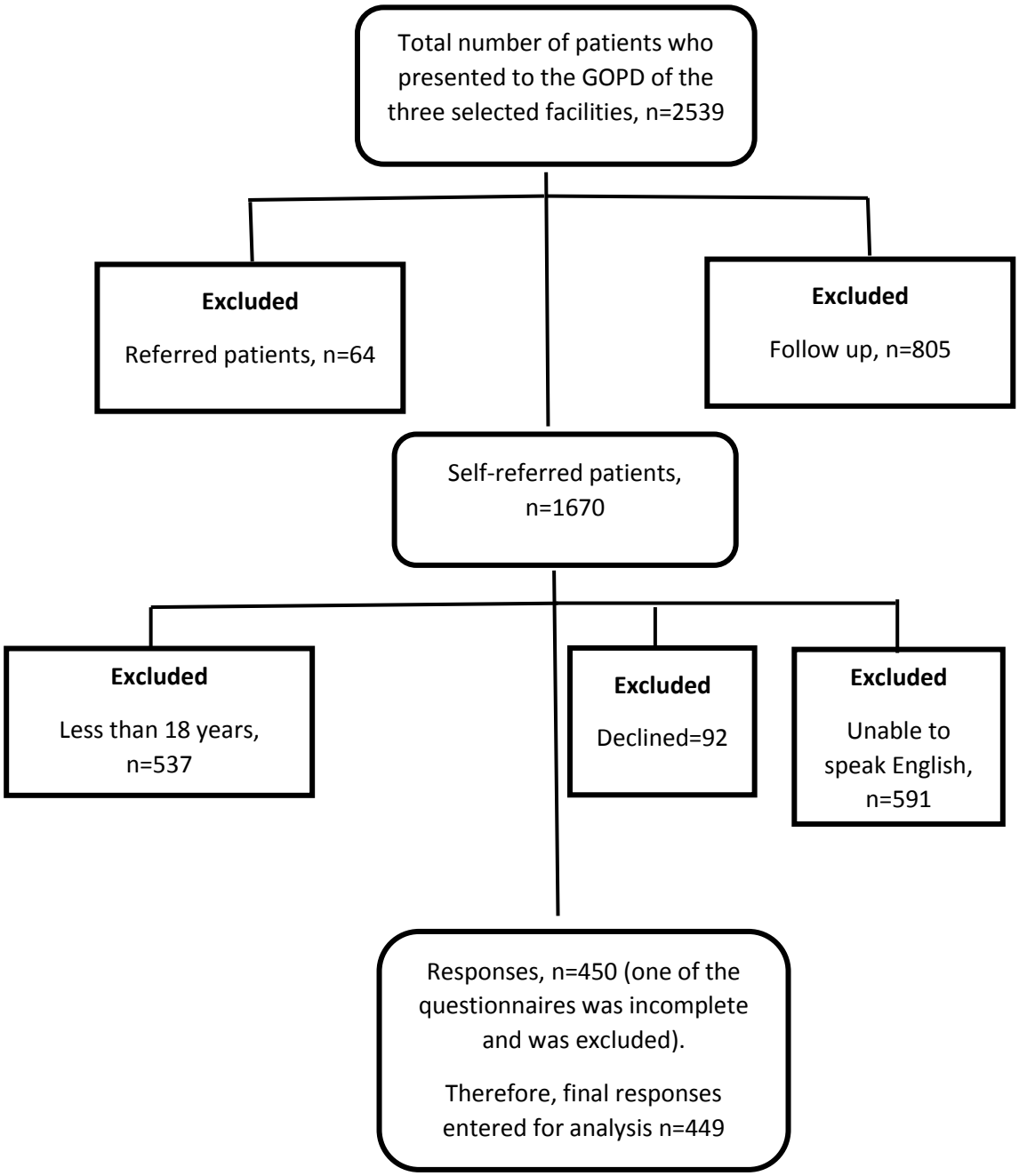


Figure 12: Flow chart showing the general breakdown of the recruitment of participants.

8.3 Normality assumption

The assumption of normality claims that the distribution of means across samples is technically normal (Mordkoff, 2016). This assumption is taken seriously for the need to be able to draw a reliable and accurate inference concerning the data (Ghasemi and Zahediasl,

2012). Therefore, the evaluation of the normality of data is necessary for deciding the appropriate statistical test to utilise for the data. Accordingly, normally distributed data aligns with the parametric test, while for data with non-specific distribution the non-parametric test is appropriate (Mordkoff, 2016).

There are several ways of evaluating whether continuous data are normally distributed; specifically, by way of graphical or test methods (Oztuna et al., 2006). The graphical methods comprise of histogram, boxplot, P-P plot (Probability-Probability plot), stem and leaf plot, and Q-Q plot (Quantile-Quantile plot). However, despite the information provided on the shape of distribution by the graphical methods, it does not guarantee that the distribution is normal and does not also test whether the difference between the normal distribution and the sample distribution is significant (Oztuna et al., 2006).

For the test method, Kolmogorov-Smirnov (K-S) test, Lilliefors corrected K-S test and Shapiro-Wilk test, are some of the common tests used for assessing normality (Ghasemi and Zahediasl, 2012). Nevertheless, the potential problems with the test methods is that a small sample size always passes a normality test. While with a large sample size, a minor deviation from normality may be recognised as statistically significant even though small deviations from normal distribution is unlikely to affect the result of a parametric test. As a result, it is advised that a combination of the graphical method and the appropriate test method should be evaluated together to decide whether the data is normally distributed (Oztuna et al., 2006).

Therefore, for this study, the normality assumption test was conducted on each of the summated sub-scale (understanding of healthcare delivery, role of healthcare providers, role of equipment or facilities, advice and awareness and access to healthcare facility) using the Shapiro-Wilk test for the test method and histogram for the graphical method. The data indicated a significant difference from normal distribution, as demonstrated by the significant results obtained from the Shapiro-Wilk test for each of the summated sub-scales. In addition, the histogram of each of the summated sub-scales did not follow the bell shape curve, which indicated that the data were not normally distributed (Mordkoff, 2016; Oztuna et al., 2006). Based on these findings, the non-parametric test was carried out on the data. Table 21 presents the results of the normality test for each of the summated sub-scales, while Appendix 25a-e presents the histograms with the normal curve distribution of the different sub-scales.

Table 21: Result of the test of normality for the summated sub-scales

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Summation for understanding of healthcare delivery	.074	449	.000	.991	449	.008
Summation for role of healthcare providers	.106	449	.000	.979	449	.000
Summation for role of equipment	.132	447	.000	.967	447	.000
Summation for advice and awareness	.249	448	.000	.915	448	.000
Summation for access to healthcare facility	.123	449	.000	.974	449	.000

a. Lilliefors Significance Correction

8.4 Recoded items

Some of the questionnaire items were re-coded to enhance the descriptive analysis and to also fit with the different bivariate analysis that was used to address the hypotheses of this research. Tables 22 to 24 presents a summary of the re-coded items.

Age: Participants divulged different ages which were continuous variables, ranging between 18 to 80 years. Therefore, this was recorded into categories such as 18-29, 30-39, 40-49 years, like Visser et al. (2015) and Rassin et al. (2006).

Marital status: Marital status was also re-coded from single, married, cohabiting, separated, divorced and widowed into two categories; specifically, unmarried (single, cohabiting, separated, divorced and widowed) and married.

Educational level: Educational level was re-coded from no formal education, primary level, secondary level and tertiary level to low level (no formal education and primary school level), intermediate level (secondary school level) and high level (post-secondary school-diploma, degree, PhD). This also aligned with the coding for other studies, for instance de Valk et al. (2014), Hong et al. (2007) and Rassin et al. (2006).

Employment status: The items were re-coded from the diverse employment the participants stated to be engaged in. This was re-coded into two categories; specifically, employed (civil servants, farmer, trader, personal business and working in a private setting) and unemployed (housewife, student, retired, no paid job), which was similar to Visser et al. (2015) and Hong et al. (2007).

Understanding of the healthcare delivery: Other items from the questionnaire that were re-coded were item 6 (PHC facilities are only meant for minor cases), item 8 (PHC facilities should

be available where people live), item 14 (general hospitals have better equipment compared to the PHC facilities) and item 15 (general hospitals attend to more serious medical conditions compared to the PHC facilities). These items were reverse coded from 1-Strongly agree, 2-Agree, 3-Not sure, 4-Disagre and 5-Strongly disagree to 5-Strongly agree, 4-Agree, 3-Not sure, 2-Disagre and 1-Strongly disagree. This was undertaken to align the items with the score for participant's level of understanding of the healthcare delivery, because the low score of the items corresponded to poor understanding of the healthcare delivery.

Medical symptoms: The symptoms identified by the participants to have prompted their presentation to the referral facility were categorised into cardio-respiratory symptoms (difficulty in breathing, blood pressure check, cough, ear pain, ear discharge), gastrointestinal symptoms (abdominal pain, vomiting, nausea, yellowness of the eyes, epigastric pain, diarrhoea), genitourinary symptoms (bleeding per vagina, menstrual pain, frequent urination, penile discharge, bladder pain while urinating, lower abdominal pain in pregnancy), musculoskeletal symptoms (tooth pain, eye pain, generalised body pain, leg pain, back pain in pregnancy, waist pain, joint pain) and others (fever, headache, sleepless night, unexplained symptoms and symptoms with multiple systemic origin). This was also in line with other related studies, such as Kraaijvanger et al. (2015), Grant et al. (2010), Charante et al. (2007) and Rassin et al. (2006).

Duration of symptom: Finally, the duration of symptoms reported by the participants was coded into categories of less than one day, one to seven days, greater than 7 days to 14 days and greater than 14 days.

All other items were coded in the same way as presented in the questionnaire.

Table 22: Summary of recoded items for the socio-demographic characteristics

Variables	Questionnaire codes	Recoded variables
Predisposing component: Socio-demographic characteristics		
Age	This item was opened for participants to state their age, thus, it generated different ages ranging from 18-80 years	Recoded into groups to aid the descriptive and bivariate analysis: 18-29 30-39 40-49 50-59 60-69 70-80
Marital status	-Single -Married -Cohabiting -Separated -Divorced -Widowed	Recoded into two categories for descriptive and bivariate analysis and also to enable comparison with other related studies: -Unmarried (includes those cohabiting, separated, divorced or widowed) -Married
Educational level	-No formal education -Primary level -Secondary level -Tertiary level	Recoded into three categories for descriptive and bivariate analysis and to enable comparison with other related studies: -Low level (no formal education to primary school level) -Intermediate level (secondary school level) -High level (diploma, degree, PhD)
Employment status	This item was opened for participants to indicate their type of employment and captured diverse status such as: civil servants, farmer, trader, personal business, housewife, working in a private setting, retired, not in any paid job.	Recoded into two categories for descriptive and bivariate analysis and to enable comparison with other related studies: -Employed- Civil servants, farmer, trader, personal business and working in a private setting -Unemployed- Housewife, student, retired, no paid job

Table 23: Summary of recoded items for the sub-scale on understanding of healthcare delivery

Predisposing components: Understanding of healthcare delivery As explained in Section 7.2.5.1.3.1, for items in this sub-scale, a low score corresponded to poor understanding of healthcare delivery in Nigeria. Therefore, these items were reverse coded to align with the score for participant's level of understanding of the healthcare delivery and furthermore, for the bivariate analysis that followed after summing the items in the sub-scale.		
Variables	**Questionnaire codes**	**Recoded variables**
Item 6-PHC facilities are only meant for minor cases*	1-Strongly agree 2-Agree 3-Not sure 4-Disagre 5-Strongly disagree	5-Strongly agree 4-Agree 3-Not sure 2-Disagre 1-Strongly disagree
Item 8-PHC facilities should be available where people live*	1-Strongly agree 2-Agree 3-Not sure 4-Disagre 5-Strongly disagree	5-Strongly agree 4-Agree 3-Not sure 2-Disagre 1-Strongly disagree
Item 14-General hospitals have better equipment compared to the PHC facilities*	1-Strongly agree 2-Agree 3-Not sure 4-Disagre 5-Strongly disagree	5-Strongly agree 4-Agree 3-Not sure 2-Disagre 1-Strongly disagree
Item 15-General hospital attend to more serious medical conditions compared to the PHC facilities*	1-Strongly agree 2-Agree 3-Not sure 4-Disagre 5-Strongly disagree	5-Strongly agree 4-Agree 3-Not sure 2-Disagre 1-Strongly disagree

Table 24: Summary of recoded items for the sub-scale of the variables on symptoms and duration of symptoms

Need components		
Variables	**Questionnaire codes**	**Recoded variables**
Symptom	This item was opened for participants to indicate what problem brought them to the hospital. It captured different symptoms such as: Difficulty in breathing, blood pressure check, cough, ear pain, ear discharge, abdominal pain, vomiting, nausea, yellowness of the eyes, epigastric pain, diarrhoea, bleeding per vagina, menstrual pain, frequent urination, penile discharge, bladder pain while urinating, lower abdominal pain in pregnancy, tooth pain, eye pain, generalised body pain, leg pain, back pain in pregnancy, waist pain, joint pain, fever, headache, sleepless night, unexplained symptoms and symptoms with multiple systemic origin.	Recoded into groups to aid the descriptive and bivariate analysis: -1. Cardio-respiratory symptoms (Difficulty in breathing, blood pressure check, cough, ear pain, ear discharge) -2. Gastrointestinal symptoms (abdominal pain, vomiting, nausea, yellowness of the eyes, epigastric pain, diarrhoea) -3. Genitourinary symptoms (bleeding per vagina, menstrual pain, persistent/ frequent urination, penile discharge, bladder pain while urinating, lower abdominal pain in pregnancy) -4. Musculoskeletal symptoms (tooth pain, eye pain, generalised body pain, leg pain, back pain in pregnancy, waist pain, joint pain) -5. Others (fever, headache, sleepless night, unexplained symptoms and symptoms with multiple systemic origin)
Duration of symptom	This item was also opened for participants to indicate the duration of symptom that prompted them to present at the hospital. It captured different durations with answers ranging from less than a day to six months.	Recoded into groups to aid the descriptive and bivariate analysis: -Less than 1 day -One to seven days -Greater than 7 days to 14 days -Greater than 14 days

8.5 Descriptive and inferential statistics

Descriptive statistics were provided for the socio-demographic characteristics and other items (sub-scales on understanding of healthcare delivery, role of healthcare providers, role

of equipment or facilities, advice and awareness and access to healthcare facility, medical symptoms, duration of medical symptoms and severity of medical symptoms) on the questionnaire. Therefore, the frequencies and percentages of the participants' responses to the items were presented.

Bivariate analysis was used to address the hypotheses formulated for this study by employing the non-parametric test. As highlighted earlier in Section 8.3, this was because the Shapiro-Wilk test for the normality assumption of the sub-scales of the instrument generated significant results. Moreover, the graphical distribution of the sub-scales did not follow a normal curve as well. Accordingly, the Mann-Whitney U test was conducted when the relationship between an outcome variable (sub-scales) and categorical variables with two groups (such as gender, employment status, marital status) was required. The Kruskal-Wallis test was undertaken when the relationship between an outcome variable (sub-scales) and categorical variables with three or more groups (levels of education) were required. Additionally, for the Kruskal-Wallis test, a multiple pairwise comparison was further carried out when a significant difference was identified. This was done to determine which of the groups differed. For associations between categorical variables, a Chi-square test was conducted.

Generally, for this study, a p-value of less than or equal to .05 was adopted as the criterion for reporting the level of significance. Accordingly, where there was need for a multiple pair wise comparison to be performed, an adjusted level of significance was calculated based on the Bonferroni correction to avoid a type I error (Connolly, 2007).

The hypotheses formulated and addressed were:

- Hypothesis 1*: There are differences between levels of education among self-referred service users in relation to their understanding of the healthcare delivery in Nigeria.*
- Hypothesis 2*: There are differences between levels of education among self-referred service users in relation to their perceptions about the healthcare providers at the primary healthcare facilities.*
- Hypothesis 3*: There are differences between levels of education among self-referred service users in relation to their perception of equipment at the primary healthcare facilities.*
- Hypothesis 4*: There are differences between unmarried and married self-referred service users in relation to advice from friends, relatives and others regarding the utilisation of healthcare facilities.*
- Hypothesis 5*: There are differences between the employed and unemployed self-referred service users in relation to their ability to access the secondary level of care.*
- Hypothesis 6*: Age is associated with the reported medical symptoms among self-referred service users.*
- Hypothesis 7*: Level of education is associated with the duration of medical symptoms among self-referred service users.*
- Hypothesis 8*: There are differences between male and female self-referred service users in relation to their perception of the level of severity of their symptom.*

8.5.1 Predisposing factors

8.5.1.1 Participants: Socio-demographic characteristics

Regarding the 449 self-referred respondents from the three selected secondary healthcare facilities, 65% (n=292) were female, while the remaining 35% (n=157) were male. The age of the participants ranged from 18 to 80 years. The highest proportion of participants were between 18-29 years of age (n=177; 39.4%), whereas the lowest proportion were between 70-80 years of age (n=7; 1.6%). Most (80%) of the participants were married, while the remaining were unmarried (single, divorced or widowed). Similarly, the proportion of married male and female were about 80.9% and 79.4% respectively of the numbers of male and female who self-referred. The participants also had different levels of education, those with a high level of education (diplomas, degrees, masters, PhD) comprised 18.7%, and those with an intermediate level of education (secondary school) made up 31.6% of the entire participants, while 49.2% of the participants had low level of education (primary school or no formal education).

Below half (47.9%) of the participants were identified as unemployed (housewife, student, retired, no paid job), whereas 52.1% of the participants were identified as having different forms of employment, such as farming, trader, personal business, working in a private setting and civil servants (working with the government). Table 25 presents a summary of the socio-demographic characteristics of the participants.

Table 25: Summary of the socio-demographic characteristics of the participants

Socio-demographic characteristics		Frequency (number)	Percentage (%)
Gender (449)	Male	157	35.0%
	Female	292	65.0%
Age (449)	18-29	177	39.4%
	30-39	136	30.3%
	40-49	64	14.3%
	50-59	38	8.5%
	60-69	27	6.0%
	70-80	7	1.6%
*Marital status (448)	Unmarried	89	19.8%
	Married	359	80.0%
	Married male	127 (total male = 157)	80.9%
	Married female	232 (total female = 292)	79.4%
	Missing	1	0.2%
**Educational level (447)	Low level of education	221	49.2%
	Intermediate level of education	142	31.6%
	High level of education	84	18.7%
	Missing	2	0.4%
***Employment status (449)	Employed	234	52.1%
	Unemployed	215	47.9%

*Marital status: Unmarried- Single, cohabiting, separated, divorced, widowed.

**Educational level: Low level of education - No formal education and primary school education; Intermediate level of education- Secondary school education; High level of education- Tertiary education (Diploma, degree, PhD).

***Employment status: Employed- Civil servants (working with the government), farmer, trader, personal business and working in a private setting; Unemployed- Housewife, student, retired, no paid job.

8.5.1.2 Understanding of healthcare delivery

The understanding of healthcare delivery in Nigeria among respondents varied across the eleven items in the sub-scale. Appendix 26 provides a summary of participant's responses to the items of this sub-scale. Approximately 50.1% of the respondents agreed that the PHC facilities are meant for minor cases, whilst 30.7% disagreed. Likewise, 51% disagreed or strongly disagreed (45% and 6.2% respectively) to the statement that PHC facilities are meant for the poor people and 45% expressed that they either strongly agree or agree to the statement (4.9% and 39% respectively). However, most of the respondents agreed or strongly agreed (73.9% and 19.6% respectively) that the PHC facilities should be made available where people live. Most respondents disagreed (65.7%) with the statement that the PHC facilities are only meant for immunisation of children. Similarly, 72.4% disagreed with the statement that the PHC facilities are only meant for pregnant women.

However, 29% of participant agreed that the PHC facilities are not important in providing healthcare, which is contrary to 51% of the respondents who disagreed with the statement. Half of the respondents agreed that the PHC facilities should only be used where there are no general hospitals. Equally, 45.2% agreed to the statement that the PHC facilities should only be used when the general hospitals are overcrowded, as compared to 40.8% of respondents who disagreed. Majority of the respondents had the understanding that the general hospitals are better equipped in contrast to the PHC facilities (48.8% agreed and 47.2% strongly agreed). They also approved that the general hospitals attend to more serious medical conditions when compared to the PHC facilities (56.6% agreed and 39.9% strongly agreed). More than half of the respondents felt that the first health facility that should be attended when sick should be the general hospital (10.7% strongly agreed and 45.7% agreed) contrary

to 38.1% who disagreed (35%) or strongly disagreed (3.1%) with the statement. Figure 13 shows a clustered bar chart for the levels of agreement for each item of this sub-scale.

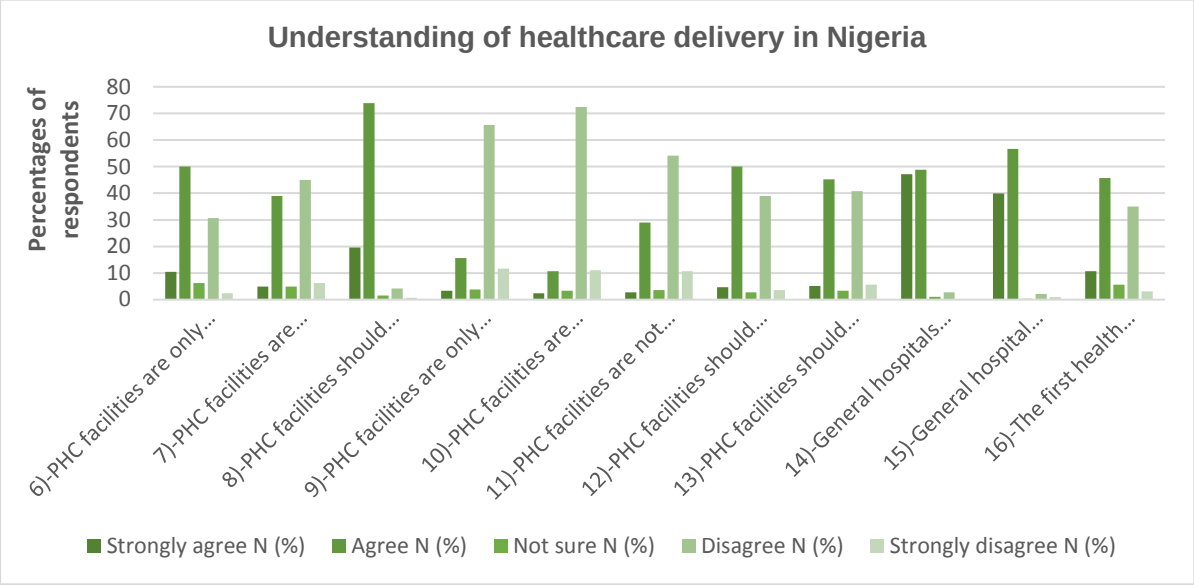


Figure 13: Respondent's understanding of healthcare delivery in Nigeria.

Hypothesis 1:

-There are differences between levels of education among self-referred service users in relation to their understanding of healthcare delivery in Nigeria.

As shown in Table 26, participants with high level of education had a greater understanding of the healthcare delivery (M = 41.32, SD = 4.22), as compared to participants with low (M = 37.85, SD = 4.40) and intermediate (M = 38.43, SD = 4.41) levels of education.

Table 26: Descriptive statistics for ratings of understanding healthcare delivery across educational level

Levels of education	Mean	N	SD	Minimum	Maximum
Low	37.85	221	4.40	22	51
Intermediate	38.43	142	4.41	28	48
High	41.32	84	4.22	31	53
Total	38.69	447	4.55	22	53

Consequently, the Kruskal-Wallis test was conducted which showed evidence of differences between the levels of education (low, intermediate and high level) of the self-referred service users in relation to their understanding of healthcare delivery in Nigeria ($p < .001$, Kruskal-Wallis $H = 35.84$, $df = 2$). Therefore, the finding supported the hypothesis formulated. On further inspection, differences were observed between the self-referred service users with high and intermediate levels of education ($p < .001$, Mann-Whitney $U = 3822.5$, $Z = 4.52$) when using a multiple pairwise comparison. Differences were also discovered between the self-referred service users with high and low levels of education in relation to their understanding of healthcare delivery in Nigeria ($p < .001$, Mann-Whitney $U = 5223.5$, $Z = 5.91$). However, no differences were determined between the self-referred service users with low and intermediate level of education ($p < .16$, Mann-Whitney $U = 14336.5$, $Z = 1.39$).

Accordingly, the Bonferroni correction was taken into consideration by applying a stricter level of statistical significance so that the overall level remained no higher than 5% (Connolly, 2007). Therefore, since three Mann Whitney U tests (high versus intermediate, high versus low and low versus intermediate level of education) were conducted to compare the three pairs of variables, the 5% level of significance set for this study was divided by 3 (5/3=0.017),

thus, resulting in setting a stricter level of significance at 1.7% for this calculation. The effect size for the difference between the self-referred service users with high and intermediate levels of education was r=0.21, while between the self-referred service users with high and low levels of education, it was r=0.28, which was relatively small.

8.5.2 Enabling factors

8.5.2.1 Role of healthcare providers

The five items in this sub-scale generated diverse responses from the participants regarding their perceptions of the healthcare providers. A summary of the participants' responses to each item of this sub-scale is provided in Appendix 26. Respondents opinions were noted to be divided regarding the statement that staff in the PHC facilities do not have much medical knowledge; 44.3% either strongly agreed (6.2%) or agreed (38.1%) to the statement compared to 47% who either disagreed (44.8%) or strongly disagreed (2.2%). Some of the respondents (10.9%) were not sure if staff in the PHC facilities knew what was wrong with them; however, 36.5% of respondents agreed, while 44.8% of respondents disagreed with the statement. Significantly, 97.5% (41.2% strongly agreed and 56.3% agreed) of respondents felt they were more likely to be seen by a doctor at the general hospital than at the PHC facility. Similarly, 98% of the respondents either strongly agreed (39%) or agreed (59%) that they prefer to be seen by doctors compared to nurses and community health workers. Consequently, 82.9% of the respondents indicated that they will attend the PHC facilities only if they have doctors (19.2% strongly agreed or 63.7% agreed). Figure 14 provides a graphical representation of the levels of agreement for each item of the sub-scale.

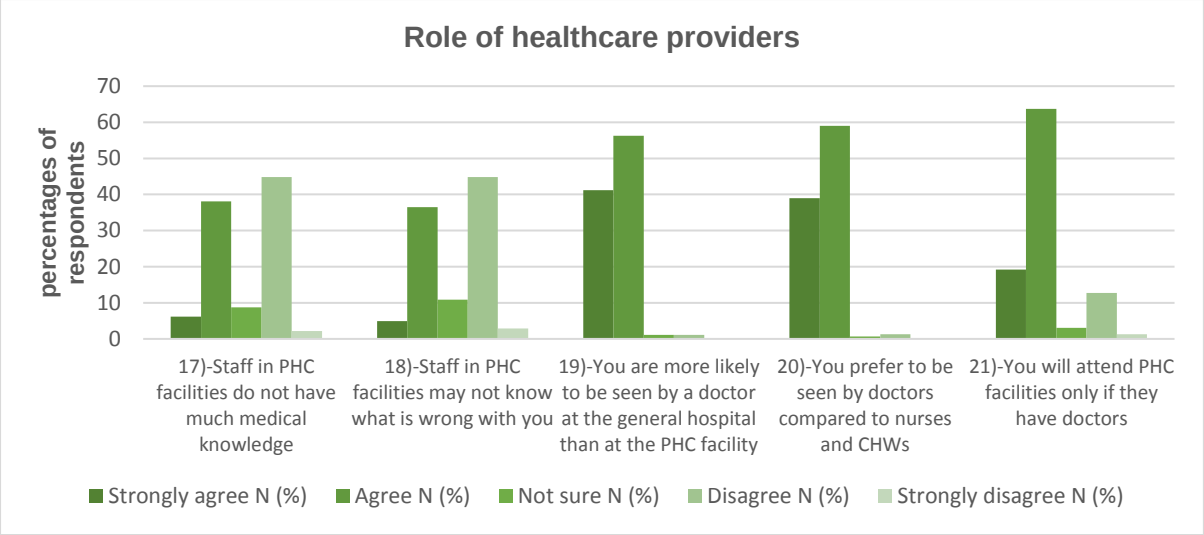


Figure 14: Role of healthcare providers.

Hypothesis 2:

- *There are differences between levels of education among self-referred service users in relation to their perceptions about the healthcare providers at the PHC facilities.*

As presented in Table 27, participants with an intermediate level of education had a slightly lower average (M = 11.18, SD = 2.33) compared to participants with low (M = 11.34, SD = 2.63) and high (M = 12.10, SD = 2.66) levels of education. This suggested that the participants with an intermediate level of education were more likely to have negative perceptions about the healthcare providers in the PHC facilities.

Table 27: Descriptive statistics for ratings of perception about the healthcare providers in the primary healthcare facilities across levels of education

Levels of education	Mean	N	SD	Minimum	Maximum
Low	11.34	221	2.63	5	20
Intermediate	11.18	142	2.33	6	17
High level	12.10	84	2.66	7	21
Total	11.43	447	2.56	5	21

On carrying out the Kruskal-Wallis test, evidence of differences was found between the levels of education (low, intermediate and high level) of the self-referred service users in relation to their perceptions about the healthcare providers at the PHC facilities ($p = .02$, Kruskal-Wallis $H = 7.66$, $df = 2$). This finding supported the hypothesis formulated. Accordingly, the multiple pairwise comparison was conducted which found differences between the self-referred service users with high and intermediate levels of education ($p = 0.008$, Mann-Whitney $U = 4705.5$, $Z = 2.67$). However, no differences were found between the self-referred service users with high and low levels of education in relation to their perceptions concerning the healthcare providers at the primary PHC facilities ($p = .03$, Mann-Whitney $U = 7850.5$, $Z = 2.10$). Likewise, there was no difference observed between the self-referred service users with low and intermediate levels of education ($p = .25$, Mann-Whitney $U = 14591.5$, $Z = 1.13$).

Notably, the Bonferroni correction was also taken into consideration due to the three Mann-Whitney U tests performed to compare the three paired variables. Thus, the significance level was set at 1.7% ($p < .017$). Accordingly, the effect size for the differences between the self-referred service users with high and intermediate levels of education was calculated and was found to be relatively small ($r=0.13$).

8.5.2.2 Role of equipment or facilities

Diverse opinion on the level of agreement was also noted among respondents on the four items in this sub-scale. Summary of participants' responses to the items of this sub-scale is also provided in Appendix 26. Most of the participants felt the PHC facilities lacked basic equipment compared to the general hospital (18.3% strongly agreed and 72.8% agreed). Approximately 45% of the respondents agreed that they cannot get their medical test done at the PHC facilities, whereas 33.6% of the respondents disagreed. More than half of the respondents (54.8%) disagreed that the PHC buildings do not look in good condition compared to 26.5% of the respondents who agreed to the statement. Equally, 26.5% of the respondents agreed that the PHC facilities are mostly dirty, while 45% of the respondents disagreed and the remaining participants were unsure. Figure 15 provides a graphical representation of the levels of agreement for each item of the sub-scale.

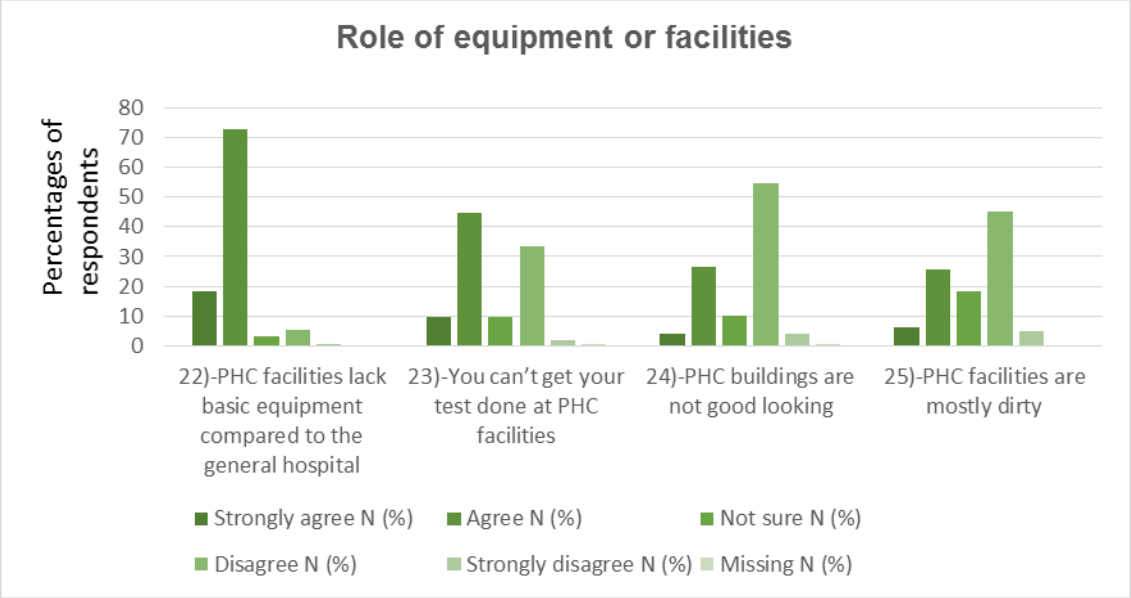


Figure 15: Role of equipment or facilities.

Hypothesis 3:

- *There are differences between levels of education among self-referred service users in relation to their perception of equipment at the primary healthcare facilities.*

As noted in Table 28, this suggests that participants with a high level of education (M = 10.89, SD = 3.06) were more likely to have negative perceptions regarding equipment/facilities at the primary level of care when compared with participants that had low (M = 11.14, SD = 2.60) or intermediate (M = 11.29, SD = 2.66) levels of education.

Table 28: Descriptive statistics of ratings of perception about equipment/facilities in primary healthcare facilities across levels of education

Levels of education	Mean	N	SD	Minimum	Maximum
Low	11.14	221	2.60	4	17
Intermediate	11.29	141	2.66	4	18
High level	10.89	83	3.06	4	17
Total	11.14	445	2.70	4	18

However, on carrying out the Kruskal-Wallis test, no differences were established between the different levels of education among the self-referred service users in relation to their perception of equipment at the PHC facilities (p = .53, Kruskal-Wallis H = 1.29, df = 2). Therefore, the finding did not support the hypothesis formulated.

8.5.2.3 Advice from friends, relatives and others

Respondent's answers to the sub-scale on advice from friends, relatives and others regarding the utilisation of the healthcare facilities also generated different levels of agreement from the four items in the sub-scale. A summary of participants' responses to the items of this sub-scale is provided in Appendix 26. Roughly 17.8% of respondents agreed that they were advised to come to the general hospital by friends/relatives, while 66.1% disagreed with the statement. Majority of the respondents indicated that they knew of the services provided at the general hospital, thus prompting them to present at the general hospital (20.5% strongly agreed and 72.8% agreed). Only about 10.5% of the respondents indicated that they knew some of the staff at the general hospital to have influenced their decision to present at the general hospital. However, most of the respondents (89.6%) felt they needed more information regarding the services at the PHC facilities (9.4% strongly agreed and 80.2% agree). Figure 16 provides a graphical representation of the levels of agreement for each item of the sub-scales.

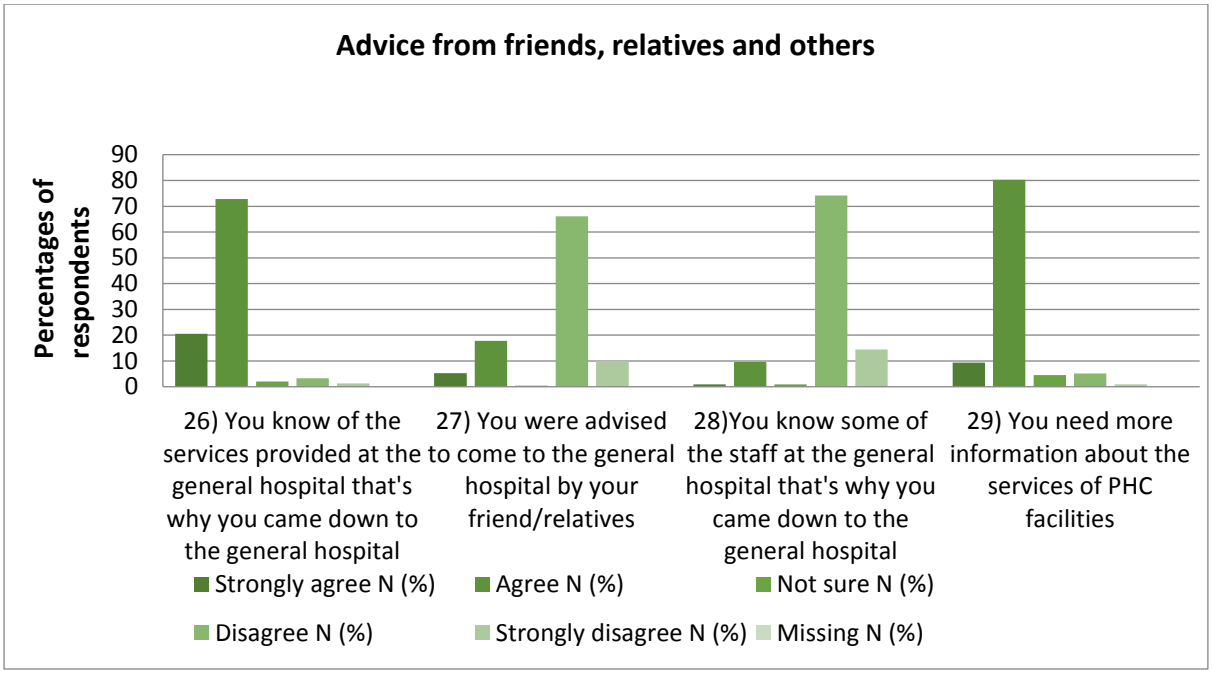


Figure 16: Advice from friends, relatives and others.

Hypothesis 4:

- *There are differences between the unmarried and married self-referred service users in relation to the advice from friends, relatives and others regarding the utilisation of healthcare facilities.*

The averages for marital status confirmed that the unmarried participants (M = 11.25, SD = 2.21) had a slightly lower average when compared to the married participants (M = 11.56, SD = 1.83), which suggests that the unmarried participants were more likely to be poorly advised on the utilisation of the healthcare facilities. The summary of the descriptive finding is presented in Table 29.

Table 29: Descriptive statistics of ratings of advice from friends, relatives and others regarding the utilisation of healthcare facilities across marital status

Levels of education	Mean	N	SD	Minimum	Maximum
Unmarried	11.25	89	2.21	5	20
Married	11.56	358	1.83	6	18
Total	11.49	447	1.91	5	20

However, the Mann-Whitney U test determined no significant difference between the unmarried and married self-referred service users concerning the advice from friends, relatives and others regarding the utilisation of the healthcare facilities (p = .073, Mann-Whitney U = 14,077, Z = 1.79). Therefore, this finding did not support the hypothesis formulated.

8.5.2.4 Access to healthcare facility

Respondents also presented their varied opinions on the five items of the sub-scale on access to healthcare facility. Appendix 26 provides a summary of participants' responses to the items of this sub-scale. Over half of the respondents agreed (52.1%) that it was cheaper for them to present at the general hospital for healthcare than go to the PHC facilities; however, 29.1 % of the respondents disagreed with the statement. Most of the respondents felt they could afford the cost of healthcare services at the general hospital (5.3% strongly agreed and 81.5% agreed). Only 23.1% of the respondents felt the general hospital was closer to where they lived in relation to the PHC facilities, whereas 73.3% of the respondents (62.8% disagreed and 10.55 strongly disagreed) felt contrary. Majority of the respondents (69.7%) also believed the irregular opening hours of the PHC facilities discourages them from using the PHC facilities (10.9% strongly agreed and 58.8% agreed). Equally, 96.6% of the respondents either strongly

agreed (39.4%) or agreed (57.2%) that the 24 hours opening time of the general hospital encourages them to attend the general hospital for healthcare. Figure 17 provides a graphical representation of the levels of agreement for each item of the sub-scale.

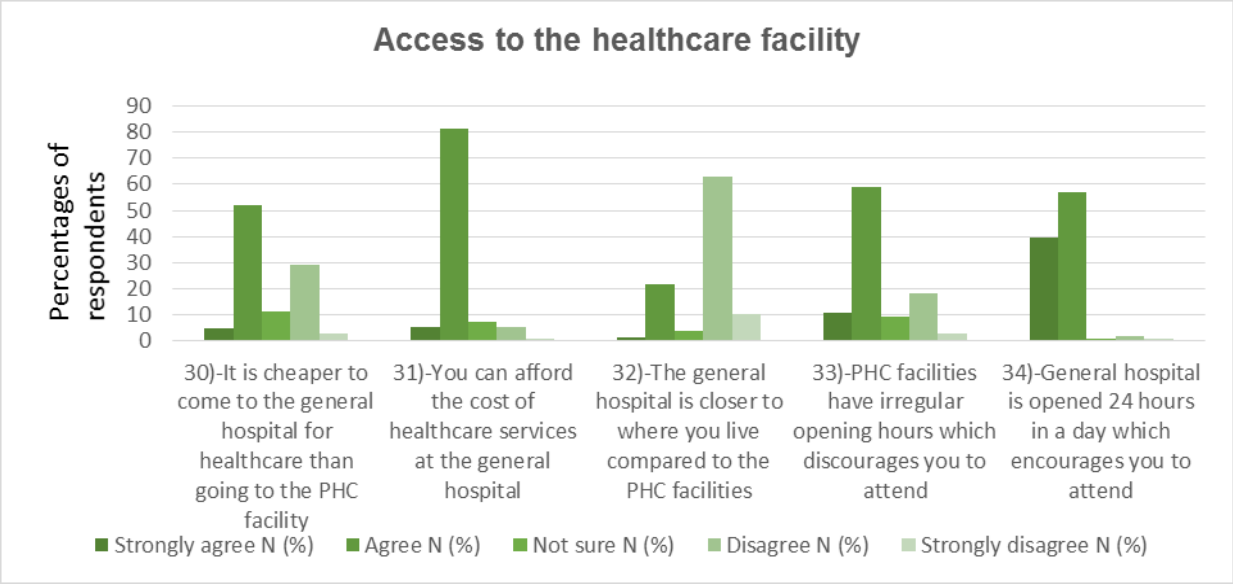


Figure 17: Access to healthcare facility.

Hypothesis 5:

- *There are differences between the employed and unemployed self-referred service users in relation to their ability to access the secondary level of care.*

Table 30 reveals that the unemployed participants (M = 12.19, SD = 2.17) had a slightly better ability to access the secondary level of care, as indicated by a lower mean average in contrast to the employed participants (M = 12.93, SD = 2.21).

Table 30: Descriptive statistics of ratings of participant's ability to access healthcare facilities across employment status

Levels of education	Mean	N	SD	Minimum	Maximum
Employed	12.93	234	2.21	8	20
Unemployed	12.19	215	2.19	7	19
Total	12.58	449	2.23	7	20

The inferential analysis revealed a significant difference between the employed and unemployed self-referred service users concerning their ability to access the secondary level of care ($p < .001$, Mann-Whitney U = 20,140, Z = 3.688). This finding supported the hypothesis formulated. The strength of the relationship between the employed and unemployed self-referred service users in relation to their ability to access the secondary level of care was found to have a relatively small effect size ($r=0.17$).

8.5.3 Need factors

8.5.3.1 Medical symptoms

Different medical symptoms were noted to be the presenting complaints of the respondents. Appendix 26 provides a summary of the different medical symptoms. These symptoms were categorised into cardio-respiratory symptoms, gastrointestinal symptoms, genitourinary symptoms, musculoskeletal symptoms and others. Symptoms that were classified under others were noted to have the highest self-referral rate (30.7%). This included symptoms such as fever, headache, sleepless night, unexplained symptoms and symptoms with multiple systemic origins. The proportion of respondents that presented with musculoskeletal symptoms was 28.5%, while genitourinary symptoms (8.7%) were the least reported

symptoms among the self-referred service users. Cardio-respiratory and gastrointestinal symptoms had 13.8% and 18.8% self-referral rates respectively. Figure 18 illustrates a pie chart representing the different groups regarding the medical symptoms reported.

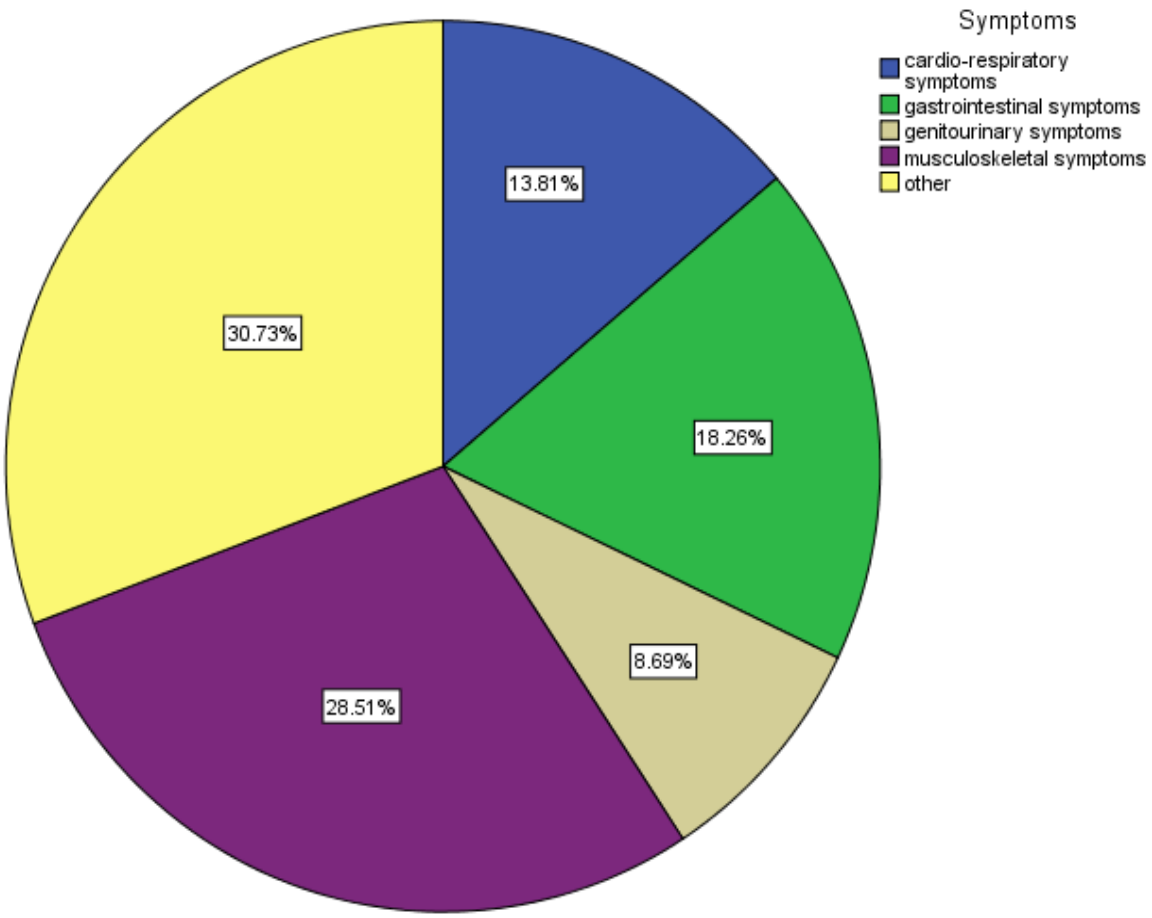


Figure 18: Reported medical symptoms.

Hypothesis 6:

-Age is associated with the reported medical symptoms among self-referred service users.

Table 31 demonstrates a cross tabulation of the participant's age groups against the different medical symptoms they presented with. Conspicuously, in addition to the medical symptoms labelled others, musculoskeletal symptoms recorded the highest presentation across all the age groups. Accordingly, the age group 18-29 years had the highest respondents, which may

have also reflected in the group having corresponding higher numbers of respondents across the different symptoms.

Table 31: Cross tabulation of reported symptoms against age groups

		Age						Total
		18-29	30-39	40-49	50-59	60-69	70-80	
Symptoms	Cardio-respiratory	15	17	12	6	10	2	62
	Gastrointestinal	44	27	6	4	1	0	82
	Genitourinary	13	12	7	6	1	0	39
	Musculoskeletal	53	32	19	10	11	3	128
	Others	52	48	20	12	4	2	138
Total		177	136	64	38	27	7	449

The Chi-square test conducted established an association between age and the reported medical symptoms among the self-referred service users, X^2 (20, N = 449) = 40.48, p = .004. This finding therefore supported the hypothesis formulated.

8.5.3.2 Duration of medical symptoms

Respondent's duration of symptoms prior to presentation at the secondary level of care also varied. Appendix 26 provides a summary of participant's responses. Most of the respondents (65.9%) had experienced their symptoms for one to seven days before presenting to the secondary healthcare facilities. Those who presented within twenty-four hours of their symptoms were 0.7% (n=3) of the total respondents (n=449). Respondents who identified their symptoms to have been present for over two weeks prior to presentation at the secondary level of care were 17.1%. The remaining 16% of respondents noted that their

symptoms had been present for roughly over seven to fourteen days. Figure 19 depicts a pie chart presenting the different durations in relation to the medical symptoms.

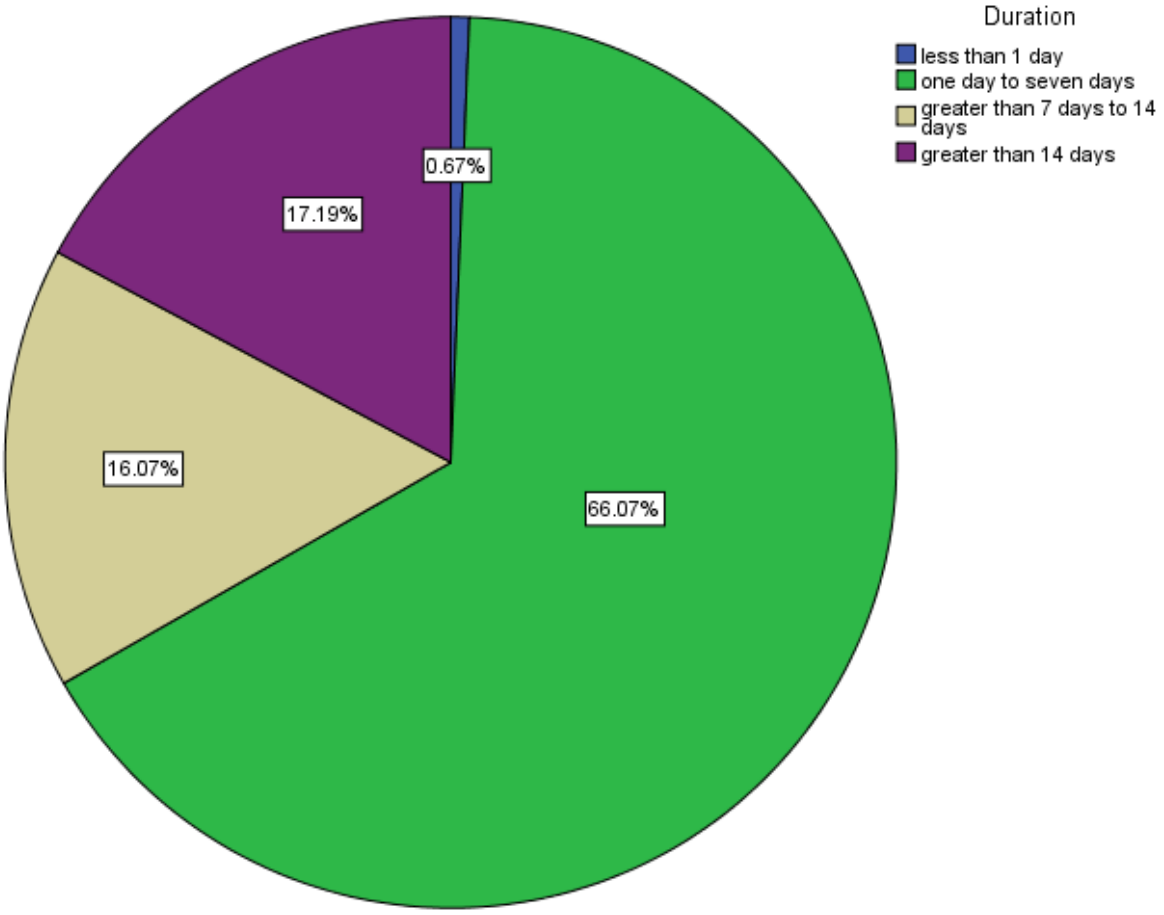


Figure 19: Duration of medical symptoms.

Hypothesis 7:

- Levels of education are associated with the duration of medical symptoms among self-referred service users.

Figure 20 below shows a clustered bar chart of the participant's level of education and the duration of symptoms prior to self-referring. This reveals that majority of the low, intermediate and high level educated participants had their symptoms for approximately one to seven days prior to presentation at the hospital.

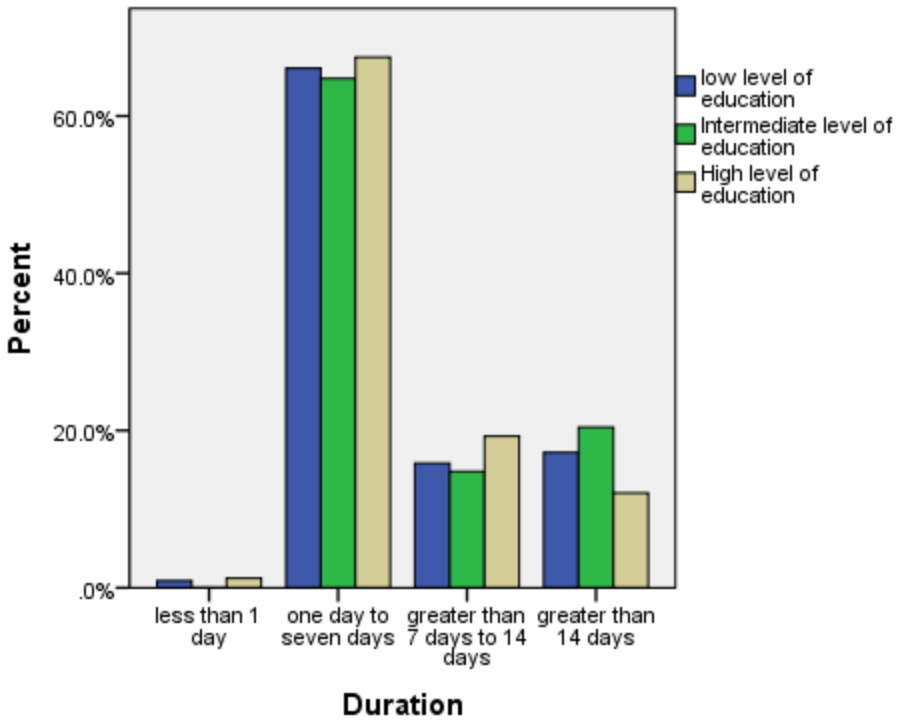


Figure 20: Clustered bar chart of level of education against duration of medical symptoms.

The Chi-square test undertaken revealed no association between levels of education and duration of medical symptoms among the self-referred service users, X^2 (6, N = 446) = 4.35, p = .63. Therefore, this finding did not support the hypothesis formulated.

8.5.3.3 Severity of medical symptoms

The self-referred service users had different perceptions about the severity of their symptoms. The summary of participant's responses to the perception of the severity of their

medical symptoms is also provided in Appendix 26. Out of 449 respondents, most of the participants felt their medical symptoms were moderate (36.1%, n=162) in severity. Respondents that identified their medical symptoms as mild were 20% of the total respondents, whereas those that considered their medical symptoms to be very severe were 7.8% of the total respondents. Respondents that identified their symptoms as severe were 29%. The smallest category was those who believed that their medical symptoms were very mild (7.1%). Figure 21 provides a graphical representation of the levels of agreement for the item.

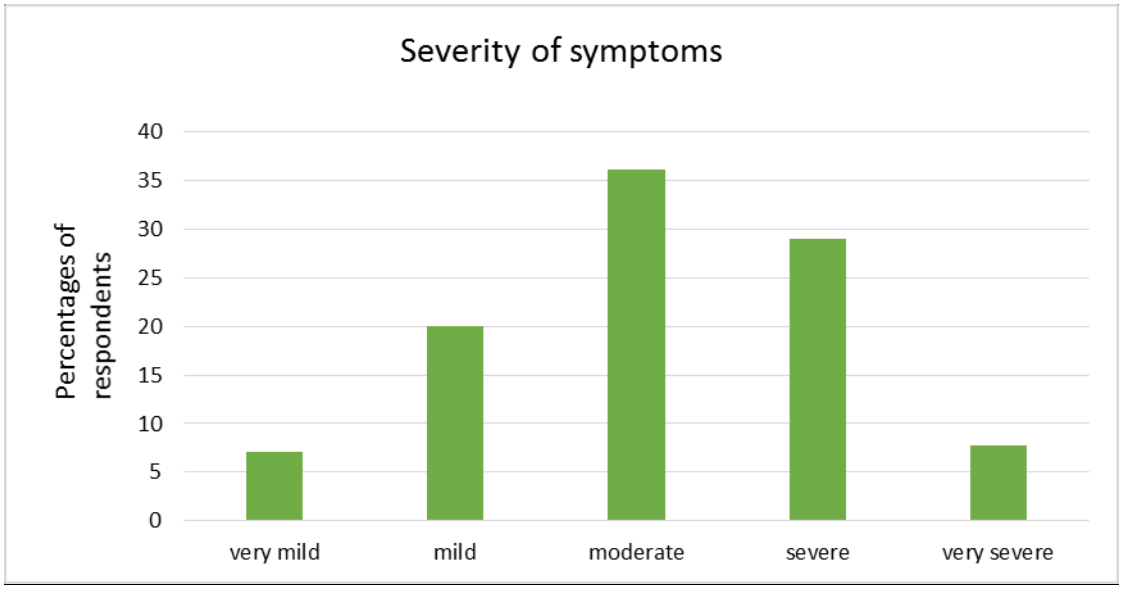


Figure 21: Reported level of severity of symptoms.

Hypothesis 8:

- There are differences between the male and female self-referred service users in relation to their perception of the level of severity of their symptom.

The clustered bar chart in Figure 22 shows that majority of the male and female participants identified their medical symptoms as moderate.

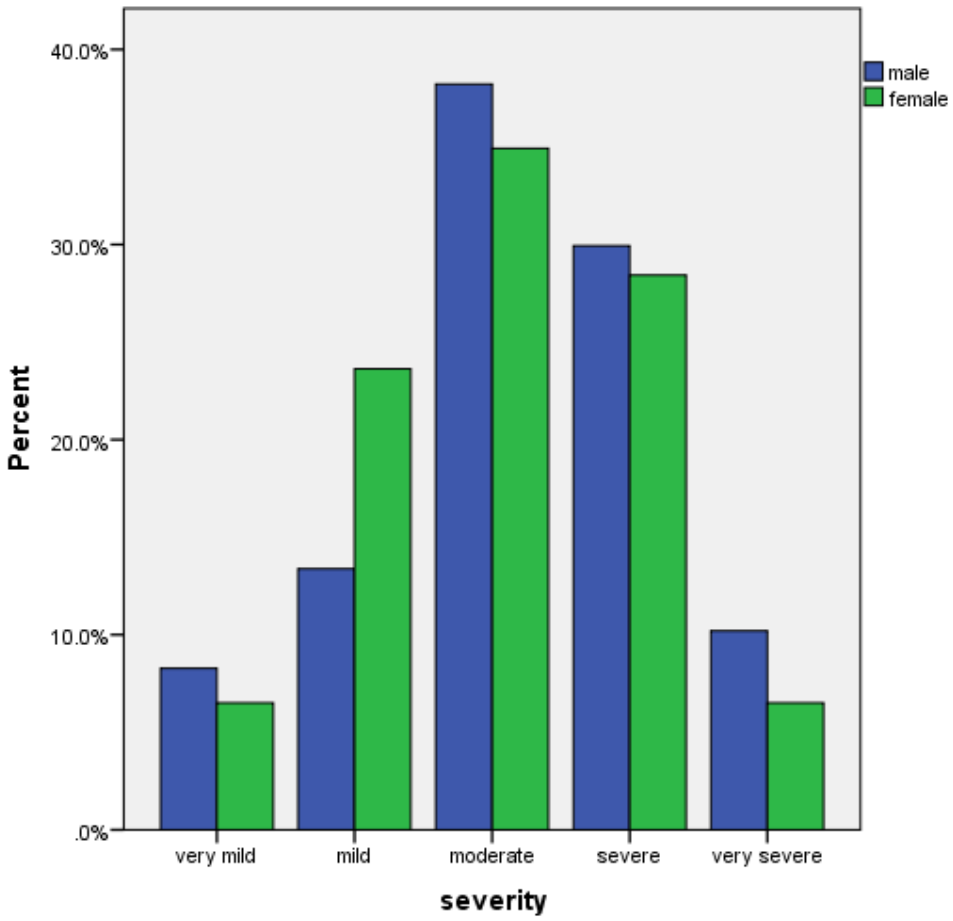


Figure 22: Clustered bar chart of level of severity and gender.

No difference was determined between the male and female self-referred service users with relation to the reported severity of their symptoms (p = .10, Mann-Whitney U =20,856, Z = 1.642). This finding did not support the hypothesis formulated.

8.6 Discussion of Objective 2 findings

8.6.1 Predisposing factors

8.6.1.1 Socio-demographic profile of respondents

The socio-demographic characteristics of the respondents for the quantitative aspect of this study captured more females (65%) self-referred service users as compared to males. This may be related to the different changes, such as physiological, biological and reproductive issues women experience when compared with their male counterparts that may prompt healthcare utilisation; consequently, requiring regular visits to health facilities, as suggested by Nnonyelu and Nwankwo (2014). Likewise, other studies have postulated different reasons why females are more likely to utilise healthcare services in contrast to males. For example, Wang et al. (2013) reported that females had a 32% higher rate when compared with their male counterparts in seeking care at general practices in the UK. They noted that the difference in consultation was more marked between 16-60 years of age, which captured the female reproductive age group. The social construct of the masculine identity is an additional factor that has been linked with the reasons for higher rates of female use of healthcare services (Noone and Stephens, 2008). Further studies have however argued that there is no difference in consultation between men and women when considering similar symptoms or conditions (Hunt et al., 2011).

Related studies, for instance Abdi et al. (2015) reported a similar proportion of females (63%) to this study, self-referring in Ethiopia. Additional studies also determined a higher proportion

of females in comparison to male patients circumventing their primary level of care (Liu et al., 2008; Guo et al., 2002; Gross et al., 2000; Lee et al., 2000).

Contrary to the above findings, Alyasin and Douglas (2014) reported that majority of self-referred patients in their study were male (57.7%). Though their study was carried out in Saudi Arabia where there is need for a male *mahram* to always take a woman to hospital when needed. The over reliance on the *mahram* may have tilted this finding. Likewise, Dolan and Dale also found that the rate of men self-referring was higher than females in their study. Their study was carried out in a minor injury unit which may explain the reason, as men are known to be more prone to injury due to engaging in more risky behaviours that exposes them to injury (Udry, 1998).

Most of the respondents in this study were between 18-39 years of age (69.7%). This reflected the report by the Population Reference Bureau (2015) which remarked that the 15-64 age group was made up of 54% of the total Nigerian population, while those less than 15 years of age comprised 43% of the population. In addition, the WHO (2012) approximated life expectancy at birth of the average Nigerian as 54 years. Therefore, the above reasons may have contributed to this finding. Similarly, the age range between 16-45 years has been commonly reported in related studies to be associated with healthcare self-referral (Kraaijvanger et al., 2015; de Valk et al., 2014; Linden et al., 2014; Charante et al., 2008; Northington et al., 2004; Bianco et al., 2003; Sempere-Selva et al., 2001; Gross et al., 2000; Maclean et al., 1999; Thomson et al., 1995).

Respondents that were employed in this study were slightly higher (52.1%) than those that were unemployed. The funding for healthcare services in Nigeria is principally via out of pocket payment by the patients. Therefore, it may be expected that the majority of those who will access the services are those that can afford them. Accordingly, employment status has been linked with one's ability to access healthcare in terms of being able to pay for the services (Egerter et al., 2009). A further reason that may also be linked to the higher number of employed participants in this study may be because of the coding of the different jobs identified. For example, participants labelled employed in this study were civil servants, farmer, trader, those engaged in personal business or working in a private setting, whereas those labelled unemployed were housewives, student, retired or no paid job. Table 25 provided a breakdown of the categorisation for employment status used in this study; specifically, employed and unemployed.

Most of the respondents in this study were married (80%). This may be ascribed to the fact that one of the inclusion criteria for this study was for participants to be 18 years of age and above. This corresponds with the reported average age at first marriage in Nigeria, which is assumed to be around 20 years of age (Ekane, 2013). The findings from this study were also in tandem with that of other studies (Abdi et al., 2015; Alyasin and Douglas, 2014; Liu et al., 2008; Rassin et al., 2006; Akande, 2004).

Most (49.2%) of the respondents in this study had low level of education (primary school and no formal education), as compared to the intermediate and higher level of education. Generally, the national adult literacy level in Nigeria is approximately 61.3% which also differs

between states. For Niger State, where this study was conducted, the adult literacy level is estimated to be 37.5% (UNESCO, 2016; WHO, 2014b), which may have accounted for the findings concerning the educational level of the participants.

It is worth reiterating at this point that educational levels, age, gender, marital status and employment status (socio-demographic characteristics) served as the independent variables for the quantitative analysis. Thus, these socio-demographic characteristics will be re-emphasised based on the hypotheses they helped to address in the subsequent discussions that follow.

8.6.1.2 Understanding of the healthcare delivery system

Over half (56.4%) of the participants in this study felt the secondary level of care was the first facility they needed to attend during ill health. This is comparable to findings from other studies, such as Abdi et al. (2015), in Ethiopia, who found that 65% of their participants did not know that the PHC facilities were supposed to be the first healthcare facility they needed to visit when ill. Similarly, Northington et al. (2004) reported that in the US, roughly 65.6% of their participants knew no other facility that they could seek appropriate care from for their complaint.

Other aspects of patients understanding regarding healthcare delivery that were elicited from this study disclosed that in the region of half of the service users felt the PHC facilities should only be used when there are no general hospitals around or when the general hospitals appeared overcrowded. This can be linked to the perception that the general hospitals are

better equipped and offer improved care when compared to the PHC facilities. Likewise, in the UK, findings revealed by Land and Meredith (2013) suggested that despite the patients having knowledge of the Walk-in-Centres, most of the patients did not consider using them. They noted that the patients had convictions that the hospital was the best place to be seen for the treatment of their condition and furthermore, had considerable emotional attachment to the hospital, which influenced their decision to use them. Though it should be mentioned that the research by Land and Meredith (2013) included all age groups from infancy to older adults, as compared to the present study which only captured the views of adults (from 18 years and above). However, the findings were comparable.

Approximately 98% of healthcare providers who participated in the study conducted by Breen and McCann (2013) in the Republic of Ireland believed that some of the patients presenting to the emergency department of a referral facility would have been more appropriately treated elsewhere. Thus, given the pattern of diseases in developing countries, including Nigeria, Lambo (2015) stated that if the PHC delivery system operates as expected with an effective referral system, the health problems of majority of the population could be resolved at the primary level of care. Consequently, Rasoulynejad (2007) suggested that, generally, poor understanding regarding the operation of the referral system plays a role in the pattern of patient's utilisation of the healthcare facilities.

- ***Hypothesis 1***

In examining the understanding of the healthcare delivery system among the self-referred service users, one of the hypotheses in this research was that there are differences between levels of education and understanding of healthcare delivery (Hypothesis 1).

A significant difference was established between levels of education and understanding of healthcare delivery among the self-referred service users in this study, suggesting that education has a role among service users' comprehension of how healthcare system operates and consequently, making informed decisions on the use of the healthcare system. Likewise, Egerter et al. (2009) mentioned that education has increased people's knowledge and cognitive skills, which enables them to make better informed choices among the health-related options available to them. However, in this study, the decision to self-refer may be viewed as an informed choice from the perspective of the service users, while conversely viewed as inappropriate utilisation of the referral facilities when considering the functions of the different levels of care. Accordingly, Durand et al. (2012) acknowledged that, despite the understanding of the healthcare system among the educated patients in their study, education served as an ability to identify and assess possible alternatives. Subsequently, this was then turned into the choice of possibly using the referral facility in the first place rather than the primary level of care.

It is important to note that findings from related studies have reported significant relation between levels of education and healthcare self-referral (de Valk et al., 2014; Kahabuka et al., 2011; Rasoulynejad, 2007; Kulu-Glasgow et al., 1998), while others have also revealed

significant association between knowledge of healthcare delivery and healthcare self-referral (Abdi et al., 2015). Nevertheless, studies on healthcare self-referral examining the relationships between the levels of education and understanding of healthcare delivery among the self-referred service users remain limited.

In a local study conducted in Nigeria to determine the awareness and perception of residents toward referral in healthcare, Abodunrin et al. (2010a) observed that the participants knowledge was significantly associated with their levels of education, meaning that the higher their level of education the more knowledgeable they were regarding referrals in healthcare. Similarly, significant findings between levels of education and understanding of healthcare delivery has been reported in other studies, Wang et al. (2017) assessed educational differences on knowledge and the use of available outpatient smoking cessation programmes among smokers in Taiwan. They learned that participants of high school graduate and those with at least a college degree were more likely to have better knowledge of the programme when compared to those with middle school or less education. Therefore, the finding from this hypothesis revealed that individuals understanding of how the healthcare system operates may be linked with their levels of education, although this may not necessarily translate into utilisation of the PHC facilities as the first level of healthcare.

8.6.2 Enabling factors

8.6.2.1 Role of healthcare providers

The descriptive findings in this study showed that participants had divided perceptions regarding the medical knowledge of the healthcare providers at the PHC facilities.

Approximately 36.5% of the respondents felt the staff at the PHC facilities may not know what was wrong with them. A higher proportion (70.9%) was reported in research completed by Abdi et al. (2015) in Ethiopia, who noted that the participants felt that their healthcare provider at the lower level may not know much in relation to their ailments. These findings however appeared not to be only limited to developing countries. In the Netherlands, Charante et al. (2008) remarked that roughly 66% of their respondents were convinced that their GP would be unable to manage their conditions which necessitated them to self-refer at the time.

An overwhelming majority (97.5%) of the participants in this study believed they were likely to see a doctor at the general hospital and generally indicated their preference to be managed by a doctor rather than a nurse or community health worker. These findings are also in agreement with that of Abdi et al. (2015), where 87.7% of their participants indicated they would like to be seen by a doctor. This suggest that the skills and expertise of the healthcare providers at the referral facilities are more appreciated when compared to that of the primary level of care, which may have subsequently led to the forming of attachments to the referral facilities and in turn bypassing the PHC facilities (Visser et al., 2015; Rasoulynejad, 2007; Rieffe et al., 1999).

- ***Hypothesis 2***

In examining the perceptions about the healthcare providers at the PHC facilities among the self-referred service users, one of this study's hypotheses was that there are differences between levels of education and the perceptions concerning the healthcare providers at the PHC facilities (Hypothesis 2).

This hypothesis generated a significant finding. A possible explanation for this finding may be related to the fact that the more educated individuals may be more likely to differentiate between the different groups of healthcare providers (doctors, nurses, community healthcare workers) in the healthcare system in the country and thus, decide which facility to use. In a setting like Nigeria, majority of healthcare providers in the primary level of care are the nurses and community health workers, while the doctors are only readily available at the referral facilities (Christian Aid, 2015; Ayodeji and Abimbola, 2014). Therefore, it may be assumed that level of education may hand the service users the discerning ability to be able to rationalise and judge the healthcare providers, either based on their specialty or expertise to finally decide which facility to utilise. Equally, Zimmerman et al. (2015) noted that education directly or indirectly helps to improve other skills, which may prove important with both navigating healthcare and making choices about personal health behaviours and lifestyle.

In related studies, Gross et al. (2000) in Israel ascertained that the self-referred patients in their study were less satisfied with their primary doctors in terms of technical comprehension of patient states, competence and explanation of their medical conditions. This left the patients preferring to seek care at the referral facilities. Similarly, in the Netherlands, Kulu-Glasgow et al. (1998) stated that the patients' positive impressions about the specialist at the referral facility and more confidence in the specialist were all found to be associated with patients self-referring. However, the relationship between levels of education and service users' perceptions about the healthcare providers on self-referral has been scarcely examined.

8.6.2.2 Role of equipment or facilities

Most of the respondents (91.1%) in this study perceived that the PHC facilities lacked basic equipment when compared to the general hospital, whereas 45% of the participants felt they cannot get their tests performed at the PHC facilities. However, only about 26.5% of the participants felt the PHC facilities were not in good condition or generally dirty. Equally, in Ethiopia, 84% of patients that circumvented their primary level of care indicated that they were not sure of getting laboratory services in those facilities (Abdi et al., 2015).

Additional studies have also reported varying proportions of service users who bypassed their PHC facilities with the hope of getting investigations and medicines at the referral facilities. Most of the investigations highlighted by service users included blood tests, x-rays, sutures and ultrasounds (Visser et al., 2015; Alyasin and Douglas, 2014; Linden et al., 2014; de Valk et al., 2014; Porro et al., 2013; Kahabuka et al., 2011; Land and Meredith, 2013; Charante et al., 2008; Dolan and Dale, 1997). Therefore, the perceptions of the service users that there are better facilities at the referral levels and will receive better care may tend to influence their decision to sidestep their PHC facilities (Northington et al., 2004; Low et al., 2001).

Generally, there appears to be an inclination among the service users for investigations, however, not every medical condition may need a test to be carried out. Some diagnoses may be based on clinical signs. Nevertheless, the need for basic equipment in the PHC facilities cannot be overemphasised; nonetheless, this seems to be lacking in most Nigerian PHC facilities (Christian Aid, 2015).

- ***Hypothesis 3***

While examining the perception of equipment at the primary healthcare facilities among the self-referred service users, one of this study's hypotheses was that there are differences between levels of education and perception of equipment at the primary healthcare facilities (Hypothesis 3).

This study did not find any significant difference among the self-referred service users in relation to their levels of education and perception of equipment/facilities at the PHC facilities. The possible explanation for this finding may be related to the general observation that the PHC facilities lacked basic equipment when compared to the referral facilities. In addition, the descriptive statistics from this study disclosed that irrespective of the educational levels of respondents, they felt the referral facilities were better equipped. Accordingly, in Nigeria, Christian Aid (2015) found that among the seventy-three PHC facilities they visited, only sixteen facilities met the criteria of servicing between 10,000 and 20,000 target populations as the minimum requirement set out by the National Primary Healthcare Development Agency (NPHDA). Furthermore, they reported that basic equipment, such as blood pressure machines, thermometers, infusion kits and pulse oximeters were not readily available in most of the facilities.

Findings from this study replicate that of a household study conducted by Burnham et al. (2011). In an attempt to understand how PHC is perceived and utilised by the Iraqis, they found that the educational levels of the head of the households had no effect on their perceptions of the services at PHC facilities. Although findings from previous related studies

have shown that the availability of basic equipment at the referral facilities and lack of the same at the primary level of care are significantly associated with patient circumventing their PHC facilities (Kraaijvanger et al., 2015; Guo et al., 2002). Bianco et al. (2003) nevertheless, noted that patients' bypassing their primary level of care to the referral facility does not necessarily mean they will need or have the investigations they think they require.

8.6.2.3 Advice from friends, relatives and others

Previous works have shown that advice from friends or relatives tend to prompt patients to seek care at the referral facilities (de Valk et al., 2014; Yaffee et al., 2012; Charante et al., 2008; Singh, 1988). Approximately 18% of respondents in this study reported that they were advised to self-refer to the general hospital. Other studies also established that patients were not only advised by their friends or relatives but also allied healthcare workers, such as pharmacists and receptionists at GP offices (Porro et al., 2013; Howard et al., 2005). In addition, having acquaintances in the health sector encouraged some patients to self-refer (Rasoulynejad, 2007; Kulu-Glasgow et al., 1998). This study also ascertained that 10.5% of the respondents indicated that they knew some of the staff at the general hospital, which influenced their decision to present at the general hospital.

- ***Hypothesis 4***

While examining the role of advice from friends, relatives and others regarding the utilisation of healthcare facilities among the self-referred service users, one of this study's hypotheses was that there are differences between marital status and advice from friends, relatives and others regarding the utilisation of healthcare facilities (Hypothesis 4).

No significant difference was determined in this study between the married and unmarried self-referred service users in relation to the advice from friends, relatives and others they had regarding the utilisation of the healthcare facilities. The probable explanation may be due to the slow but progressive modification regarding traditional African family patterns as a result of the process of modernisation. Regarding marriage, despite couples tends to share and support one another in decision making, women tend to have a lower status than their male counterparts in Africa which places them in a position where they are more dependent on their husband's consent for decisions than vice versa (Therborn, 2006). However, with modernisation, this norm is gradually being changed, it has also been observed that the age at first marriage in sub-Saharan Africa is also experiencing delay in contrast to the past (Ekane, 2013). Consequently, it is likely this development has accorded individuals, especially married women, the freedom to make personal decisions pertaining to their health. Additionally, technological advancement has made it easy for anyone to be able search the internet wherever they are for the information they need. Thus, this may have led to less dependence on one another for advice on available healthcare need or resources.

Though, findings from related literatures have shown that marital status has significant association with healthcare self-referral (Alyasin and Douglas, 2014; Liu et al., 2008), a significant relationship has also been reported between advice from friends, relatives and others on utilisation of healthcare facilities and self-referral (Linden et al., 2014; Rassin et al., 2006). However, there is still a dearth of literatures on this aspect of healthcare self-referral.

8.6.2.4 Access to healthcare facility

The cost of receiving healthcare services was perceived as inexpensive at the general hospital when compared to the PHC facility, by about half of the respondents in this study. Majority of the respondents also indicated that they could afford the cost of healthcare at the general hospital. In a study conducted in Iran by Rasoulynejad (2007) it was observed that despite the perception by some participants that specialist care cost a little more than that of their GP service, they still preferred to self-refer to a specialist. Contrary to the above findings, among healthcare provider's participants, research undertaken by Masso et al. (2007) in Australia to ascertain some of the reasons why patients present to the emergency department with cases that are meant for the primary level of care, they established that reasons included patients not being charged for x-rays, medicine or to see the doctor at the emergency department and the convenience for the patients to attend the referral facility. Therefore, besides the patient's personal perception and decision about the cost of care, the nature of operation of the healthcare systems, for instance availability of free healthcare services may also influence a patient's decision on where to seek healthcare.

It should be noted that mixed findings have been reported regarding the proximity of the referral or PHC facilities influencing the need to self-refer. For example, some studies reported that the referral facilities were more proximal to most of their participants, which in turn influenced their decision to seek healthcare at the referral facility (Porro et al., 2013; Lega and Mengoni, 2008; Rassin et al., 2006; Sempere-Selva et al., 2001; Rieffe et al., 1999; Dolan and Dale, 1997). While for others, participants had to travel an average of an additional 27 miles to reach the referral facility farther away (Radcliffe et al., 2003) or had to travel more

than 30 minutes to reach the referral facility (Yaffee et al., 2012). Majority of respondents (73.3%) in this study indicated that their primary level of care was closer than the referral facility but still decided to attend the referral facility. This may relate to the confidence they have in the referral facilities, as compared to the PHC facilities.

In Tanzania and Namibia, experiences among the respondents of finding that the PHC facilities were closed when they were supposed to be open was noted to have influenced their decision to circumvent the PHC facilities (Kahabuka et al., 2011; Low et al., 2001). Likewise, in Japan, the closure of the GP facilities on public holidays or at night made patients seek care at the referral facility. In tandem with the findings of this study, majority of the respondents (69.7%) were discouraged by the irregular opening hours of the PHC facilities and in turn indicated that the opening of the general hospitals for 24 hours a day influenced their decisions to sidestep the primary level of care.

- ***Hypothesis 5***

One of this study's hypotheses was that there are differences between employment status and access to the secondary level of care among the self-referred service users (Hypothesis 5).

This study established a significant difference between employment status and the ability to access the secondary level of care among the self-referred service users. As previously pointed out, accessing healthcare in Nigeria is primarily an out of pocket payment, which may

explain the significant difference observed between the employed and unemployed self-referred service users in accessing the secondary level of care. As also observed previously in the qualitative findings, participants described the primary level of care as facilities designed for the poor population and the referral facilities for the more affluent population. Therefore, the probable consequence of this perception is that patients who feel they can afford the cost of healthcare services at the referral facility may tend to bypass the PHC facilities to the referral facilities.

The finding of this study regarding the relationship between employment status and access to healthcare facilities among self-referred service users expands on the findings from related literatures. For example, Rieffe et al. (1999) found that patient with high socio-economic status who live in the suburban area did not visit the ED because they happened to be in the neighbourhood but rather, they specifically selected the ED when they needed medical treatment as compared to the people with low socio-economic status who valued convenience in accessing their healthcare facility. Other literatures on healthcare self-referral have also shown a direct significant relationship between employment status and healthcare self-referral (Visser et al., 2015; Tsai et al., 2010; Lega and Mengoni, 2008; Lee et al., 2000). Additionally, a significant relationship between access to healthcare facilities and healthcare self-referral has been reported (de Valk et al., 2014; Linden et al., 2014; Radcliffe et al., 2003; Low et al., 2001; Lee et al., 2000). However, there remains a dearth of literatures examining the relationship between employment status and access to healthcare facilities among self-referred service users. Therefore, more researches are required in this direction.

Generally, the correlation between employment status and access to healthcare has been well established in different fields of study, it has been observed that higher paying jobs offer an individual the opportunity to be able to accumulate wealth and subsequently access healthcare when needed (Egerter et al., 2009). In a National Health Interview Survey (NHIS) conducted by Driscoll and Bernstein (2012) in the US to compare health insurance status, health, and access to healthcare of employed and unemployed adults aged 18–64 years, they found that unemployed adults were less likely to receive needed medical care and prescriptions than the employed in each insurance category due to cost. Similarly, in Zimbabwe, Kevany et al. (2012) assessed the impact of Socio-Economic Status (SES) and employment status on the utilisation of health services in rural Zimbabwe. They ascertained that utilisation was strongly associated with SES and employment status, particularly for services where a user fee was required. Roots (2016) however indicated that when considering the inequalities in access to healthcare, different welfare regimes of countries (such as insurance and taxations) and healthcare systems, both play their role as mediators between employment status and access to healthcare. Therefore, it is expected that findings may differ from one setting to the other and consequently, should be contextualised.

8.6.3 Need factors

8.6.3.1 Medical symptoms

Apart from the symptoms categorised as others due to the non-specific origin of the symptoms, musculoskeletal symptoms recorded the highest proportion (28.5%) of self-referred respondents. This was similar to other related studies (Kraaijvanger et al., 2015; de

Valk et al., 2014; Tsai et al., 2010; Charante et al., 2008; Rassin et al., 2006; Northington et al., 2004; Forrest et al., 2001; Dolan and Dale, 1997), which identified musculoskeletal symptoms as the most frequently reported symptoms in their study. However, for Dolan and Dale (1997), it might have been expected that most of their participants (84.9%) would have musculoskeletal problem because their study was conducted among self-referred service users at a Minor Injury Units (MIUs) in the UK. Nevertheless, musculoskeletal symptoms are regularly associated with pain and discomfort that interferes with an individual's daily activities. Therefore, the need for immediate relief may have prompted majority of patients with these symptoms to seek urgent care at the referral facility, as reflected in this and other studies.

The least frequently reported symptoms in this study were genitourinary symptoms (8.7%), though Visser et al. (2015) in their study undertaken at a referral facility in South Africa found that pregnancy related symptoms (25.4%) was one of the most reported symptoms among the self-referred participants. They however argued that this may be as a result of termination of pregnancy that was required by several of the patients which was only performed at the referral level at the time of their study.

Different rates of other medical conditions have also been reported by different studies. For example, Land and Meredith (2013) found that majority (20%) of participants in their study were identified under the category of 'pain' which included all the cases where the respondent had described pain as their primary complaint. While Sempere-Selva et al. (2001) noted that neurologic and sense organ diseases and respiratory diseases generated the

highest frequency of presentations based on the diagnostic groups in their study. Cardio-respiratory (13.8%) and gastro-intestinal (18.8%) symptoms were also identified as some of the common symptoms in this present study. Notably, symptoms identified from this present study and related studies are diverse and the categorisation of the symptoms also tends to differ among studies, which may have influenced the different findings in terms of the reported rate of symptoms.

- ***Hypothesis 6***

One of this study's hypotheses was that age was associated with the reported medical symptoms among self-referred service users (Hypothesis 6).

Accordingly, this study reported a significant association between age and the reported medical symptoms among the self-referred service users. Age has been reported to be one of the most powerful risk factor for some disease conditions. For example, osteoarthritis has been found to have an exponential increase after the age of 50 (Brandt and Fife, 1986). Musculoskeletal symptoms were the most common reported symptoms across all the age groups in this study, aside from the symptoms categorised as others. The fact that most of the respondents in this study were between 18-39 years of age (69.7%) may have also reflected in the proportion of this age group across all the reported symptoms. Also of note is that the life expectancy of the Nigerian populace was reported as 54 years for both sexes in 2012 (WHO, 2015a). This may have also resulted in a greater number of respondents who participated in this study to fall below 40 years of age, thereby influencing the finding as well.

However, in Saudi Arabia, Alyasin and Douglas (2014) noted that older patients greater than 60 years were more likely to bypass their primary level of care which was ascribed to the burden of protracted ailments among that age group which likely requires a specialist attention that were readily available at the referral facilities.

Notably, the WHO (2015a) indicated that in 2012, maternal and neonatal nutritional conditions, HIV, TB, malaria, acute respiratory infections and unintentional injuries were the most common disease burden in Nigeria. The above findings, however took all age groups into account, while this present study only looked at patients from 18 years of age and above. This might have contributed to the differences observed with the identified medical symptoms in this study in contrast to the disease burden identified by the WHO (2015a). In addition, symptoms originating from a particular body area as adopted by this study may not necessarily reflect a diagnosis in the same body area. Therefore, the use of the specific diagnosis might have been a better objective judgement in ascertaining the respondents need component of Andersen's model as compared to the use of medical symptoms in this study (Andersen, 1995). However, the potential difficulty for researchers in employing medical diagnosis in primary researches for the need component of Andersen's model is the ethical issues that may likely be involved. Thus, more work is required in this area in adopting ways of including patient's diagnosis within the need components of Andersen's model in primary researches.

8.6.3.2 Duration of medical symptoms

Majority of the respondents (65.9%) in this study had their medical symptoms for about one to seven days prior to presenting at the secondary healthcare facilities. This was similar to Kahabuka et al. (2011) who reported that roughly 86% of the self-referred participants in their study presented to the referral facility within the first four days of their child's symptoms.

Those who presented within 24 hours of their symptoms in this study were 0.7% (n=3) of the total respondents (n=449). This was contrary to findings described by Dolan and Dale (1997), where 75% of their participants presented within about 24 hours or less of their symptoms. Similarly, Alyasin and Douglas (2014) reported that two-thirds (64%; n = 224) of their sample participants presented to the emergency department within 24 hours of the commencement of their symptoms.

The discrepancies observed in the rates of patients presenting at different durations of their medical symptoms may be linked to the fact that the present study was carried out at the General Out-Patients Department (GOPD), in comparison to others carried out at the emergency departments. When compared with studies such as Alyasin and Douglas (2014), Porro et al. (2013) and Rassin et al. (2006) which were undertaken at the emergency department, the likelihood of most of the patients presenting within 24 hours of the duration of their symptoms may be expected to be higher, as reported.

- ***Hypothesis 7***

In examining the duration of medical symptoms among the self-referred service users, one of this study's hypotheses was that levels of education are associated with the duration of medical symptoms among self-referred service users (Hypothesis 7).

The findings from this study did not establish any significant association between the levels of education and the duration of medical symptoms prior to self-referral among the service-users. The absence of significant association between these variables may be linked to the fact that this study captured varied symptoms; consequently, participants may have had different perceptions and interpretations of their symptoms and when to seek care. Though the descriptive analysis confirmed that majority of the participants presented to the referral facility between the first and seventh day of experiencing their medical symptoms. This was irrespective of whether the participants had low, intermediate or high level of education. Other factors may have also had extraneous effect on this finding, such as the respondents' perception of the level of severity of their symptoms. This might have influenced their decision on when to decide to present to the referral facility.

Related studies have reported an association between patients whose symptoms had lasted less than twenty hours and healthcare self-referral (Bianco et al., 2003). Kahabuka et al. (2011) also found that symptoms are more likely to be present for one to four days before the caregivers bypass their PHC facilities to the referral facility with their under-five children. However, the relationship between levels of education and duration of symptoms prior to

self-referring has not been extensively examined among self-referred service users. Though, in a study conducted by Osei et al. (2015), in Ghana, to determine the factors associated with delays in diagnosing tuberculosis. They determined no significant association between the patients delay in presentation for diagnosis and levels of education, which is in tandem with the finding from this study. Though, the studies differ in the sense that Osei et al. (2015) looked at a specific medical condition in contrast to this study that focused on utilisation of healthcare facilities.

8.6.3.3 Severity of symptoms

Related literatures have reported varying rates of respondents that identified their medical conditions as either good or bad, urgent or non-urgent and severe or mild to have prompted the need to seek care at the referral facility. For example, 65.3% of respondents who contributed to the study by Alyasin and Douglas (2014), who were categorised as non-admitted minor uncomplicated cases believed their conditions were urgent. Similarly, Abdi et al. (2015) reported that approximately 81.8% of their respondents perceived their medical condition as severe. For this study, majority of respondents identified their medical conditions as moderate in severity (36.1%, n=162).

Respondents that identified their medical conditions as mild in this study were 20% of the total respondents. For other studies this ranged from 47% to 78% (Linden et al., 2014; Yaffee et al., 2012; Gross et al., 2000). Nevertheless, the discrepancies observed in the various reported rates of perceptions of symptoms may be due to the subjective nature of measuring the item which is based on the interpretation individuals accord to their symptoms.

- ***Hypothesis 8***

One of this study's hypotheses was that there are differences between the male and female self-referred service users in relation to their perception of the level of severity of their symptom (Hypothesis 8).

This study found no significant difference between the male and female self-referred service users in relation to the reported severity of their symptoms. This may be because this study did not focus on a specific medical condition but rather on general medical symptoms that the patients presented with. Another factor may have also been the subjective nature of the tool employed to identify the respondents' severity of symptoms based on self-identification of either 'very mild, mild, moderate, severe or very severe', as stated previously. Similarly, in Saudi Arabia and Israel, no differences were found between men and women in their perceived and evaluated urgency of visit to the referral facility (Alyasin and Douglas, 2014; Rassin et al., 2006). Macintyre et al. (1996) nevertheless, mentioned that the direction and magnitude of sex differences in health likely varies according to the particular symptoms or conditions in question and according to age.

Further studies noted that females were likely to report more bodily distress and more numerous, more intense and more frequent somatic symptoms than men (Barsky et al., 2001). Barsky et al. (2001) suggested that this may be linked with some women's biological experiences, such as menstruation, menopause, pregnancy and lactation which all serve to repeatedly increase women's attention to their anatomy and physiology. They added that this makes women more aware and attentive to weak or diffuse bodily stimuli which men are less

concerned about. Other suggestions postulated were the social construct of gender which begins right from childhood, where boys are taught to be less expressive about illness and discomfort, therefore ignoring pain and not admitting weakness. Nevertheless, Macintyre et al. (1996) perceived that the gender and health relationship is a complex one that warrants periodic re-examination.

Related studies have concentrated predominantly on the relationship between severity of symptoms and healthcare self-referral. However, mixed findings have been reported, with some studies highlighting perception of urgency or severe symptoms to be significantly associated with healthcare self-referral (Lee et al., 2000; Akin and Hutchinson, 1999; Kulu-Glasgow et al., 1998), while in other cases non-urgent or non-severe complaints were significantly associated with healthcare self-referral (Linden et al., 2014; Kahabuka et al., 2011). Accordingly, more studies are required to determine the impact of the relationship between gender and perception of severity of symptoms among the self-referred service-users.

8.7 Summary

The second objective of this research was to examine the identified factors that influence healthcare self-referral. The descriptive analysis disclosed diverse levels of agreement with each item of the sub-scales. Hypotheses were also developed based on the qualitative findings. Of the eight hypotheses developed four were found to be supported (see Table 32 below for summary of the findings).

Table 32: Summary of findings for the hypotheses formulated

Dependent variables		Independent variables (Predisposing factors)				
		Level of education	Employment status	Age	Gender	Marital status
Predisposing factor	Understanding of healthcare delivery	p < .001 **SUPPORTED**				
Enabling factor	Perceptions about the healthcare providers at the PHC facilities	p = .02 **SUPPORTED**				
Enabling factor	Perception of equipment at the PHC facilities	p = .53 **NOT SUPPORTED**				
Enabling factor	Advice from friends, relatives and others					p = .073 **NOT SUPPORTED**
Enabling factor	Access the secondary level of care		p < .001 **SUPPORTED**			
Need factor	Duration of medical symptoms	p = .63. **NOT SUPPORTED**				
Need factor	Reported medical symptoms			p = .004 **SUPPORTED**		
Need factor	Perception of the level of severity of symptoms				p = .10 **NOT SUPPORTED**	

The following chapter presents the final discussion of the thesis.

9.0 Chapter Nine: Final Discussion

9.1 Introduction

The overall aim of this research was to understand why service users self-referred to the secondary healthcare facilities without prior utilisation of the primary healthcare facilities as it applied to the Nigerian healthcare system. This was addressed using a mixed method approach (exploratory sequential mixed method). This chapter, therefore summarised and integrated the key findings with respect to the set objectives of the study. It also relates the findings to the adopted theoretical model. The methodological considerations are also presented. In addition, the implication for policy, practice and future research are also addressed. Finally, a general concluding remark is provided.

9.2 Summary of the key findings: Integration of the findings from Objectives 1 and 2

The two objectives of this research were:

Objective 1

- To identify the factors that influence service users' self-referral to the secondary healthcare facilities by exploring the perceptions and experiences of the service users and healthcare providers (qualitative approach).

Objective 2

- To examine the relationships between the identified factors that influence the decision to self-refer among the self-referred service users (quantitative approach).

Andersen's model was adopted as the theoretical model for this study to help provide a framework in addressing the objectives of this study. Accordingly, the model was instrumental in shaping and structuring the first and second objectives of this study. Likewise, the integration of the two objectives of this study was also guided by the components of Andersen's model (predisposing, enabling and need factors).

To achieve the objectives of this research, both qualitative and quantitative approaches were employed. This study was carried out in a sequential manner, starting with the qualitative approach which was then followed by the quantitative approach. Thus, this allowed for the integration of the findings from Objectives 1 and 2 to occur (Fetters, Curry and Creswell, 2013; Creswell and Clark, 2011).

This section therefore discusses how the findings from the first and second objectives (qualitative and quantitative findings respectively) compared and connected in terms of healthcare self-referral, as it applied to the Nigerian context. Figure 23 below depicts the findings from Objectives 1 and 2 of this study that were integrated, whilst Figure 24 shows a Venn diagram of the identified factors based on Andersen's components and the relationships from the hypotheses formulated.

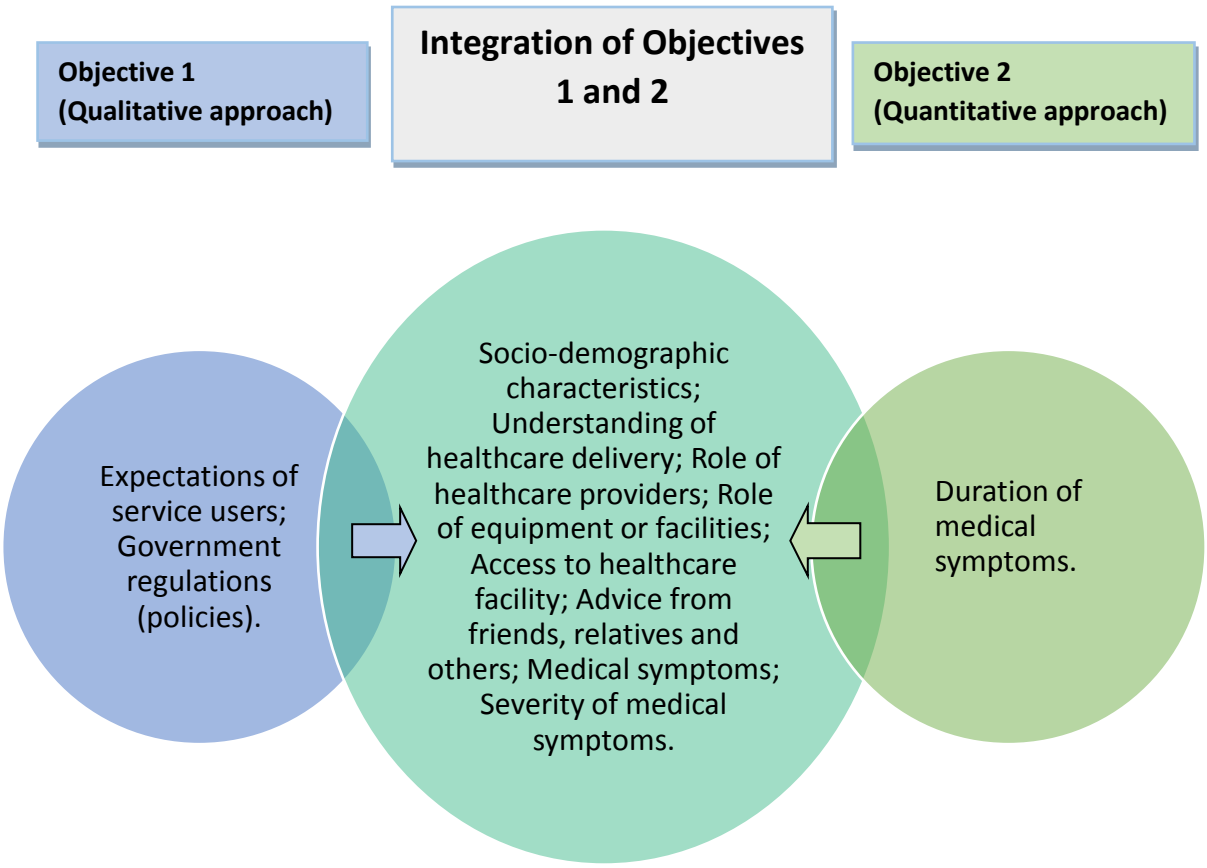


Figure 23: Venn diagram of integration of Objectives 1 and 2.

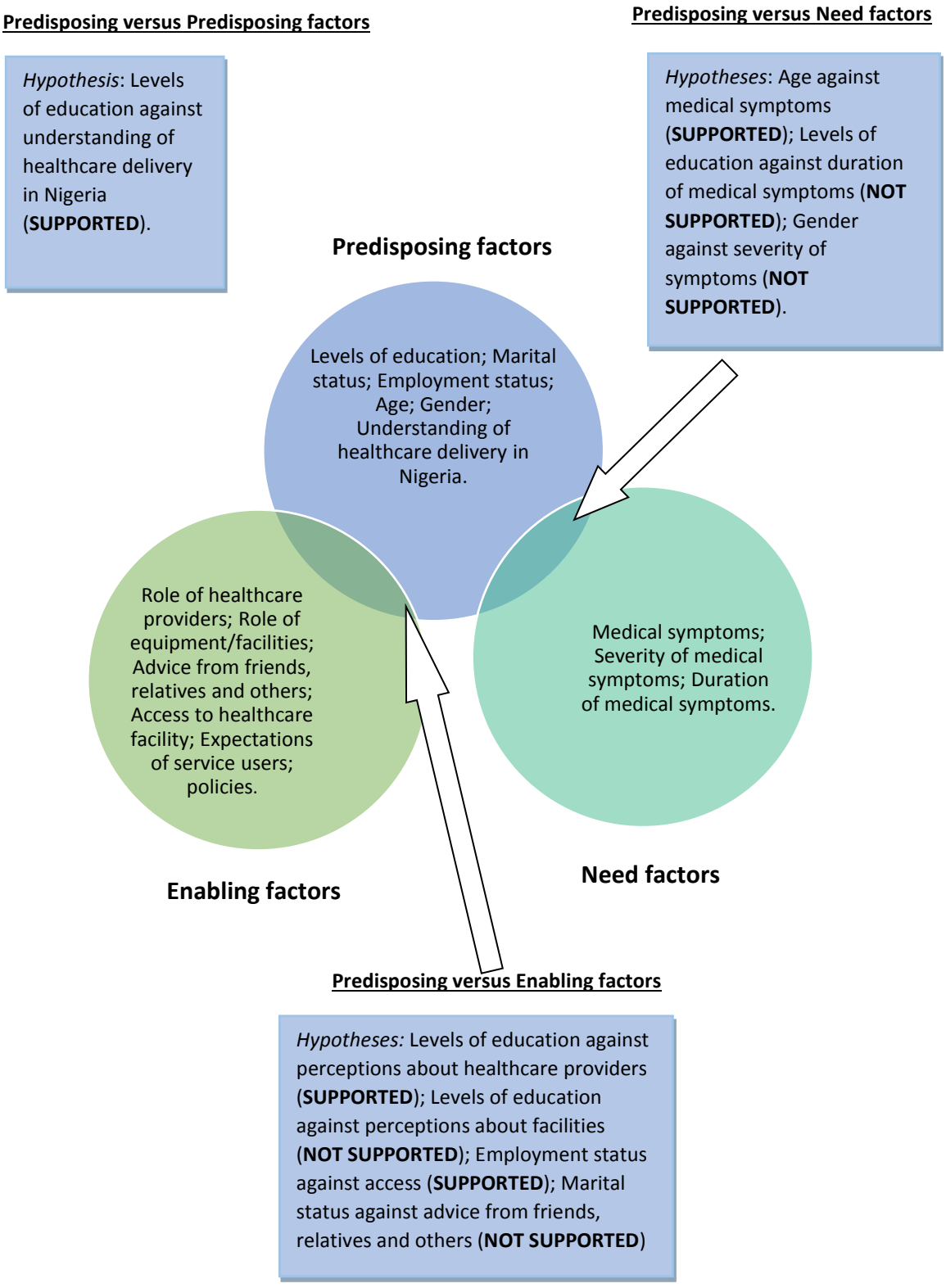


Figure 24: Venn diagram of the identified factors based on Andersen's components and the relationship from the hypotheses formulated.

9.2.1 Predisposing factors

Andersen (1995) described the predisposing components of their model as socio-cultural characteristics of an individual that existed prior to illness or utilisation of a healthcare facility. This may comprise of educational status, occupation, ethnicity, social networks, social interactions, culture, attitudes, values and knowledge that people have towards the health care system, age and gender, as applicable. In this study, the identified predisposing factors included the socio-demographic characteristics (age, gender, education, employment and marital status) and the knowledge of the respondents on the healthcare delivery system.

9.2.1.1 Socio-demographic characteristics

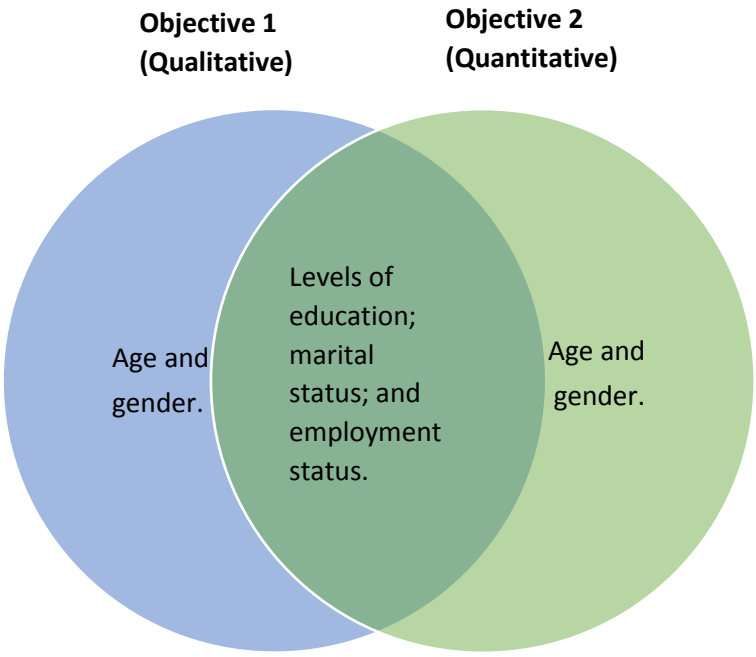


Figure 25: Venn diagram showing areas of similarities and differences in the socio-demographic characteristics of participants for Objectives 1 and 2.

Figure 25 above presents a Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2. Twenty-four self-referred service users were interviewed to address the first objective of this study. The participants were evenly distributed based on age and gender. For the second objective, 65% (n=292) of the self-referred service users were female and 69.7% (n=313) were between the ages of 18-39 years. These discrepancies were possibly due to the maximum variation sampling technique employed for Objective 1 as compared to the single stage cluster randomised sampling technique employed for Objective 2 of this study. It is also worth reiterating that the life expectancy at birth in Nigeria is approximately 54 years, as stated previously (WHO, 2015a); hence the probable reason that majority of the participants clustered within 18-39 years.

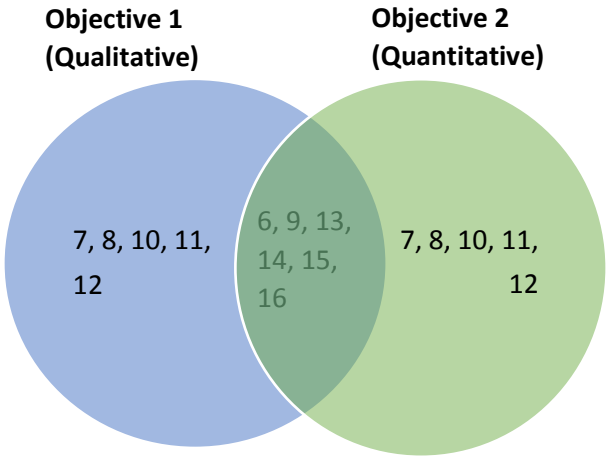
Most of the service user participants (n=20) who addressed Objective 1 were married, which was comparable with the findings among the service users in the quantitative phase, where 80% (n=359) were married. The inclusion criteria of 18 years and above for the participants might have also contributed to most of the participants falling within the married category (Ekane, 2013).

The participants for the first objective of this study had diverse levels of education; these included those with tertiary, secondary, primary and no formal education. Though, the categorisation of levels of education for the participants of the second objective was based on low (No formal education and primary school education), intermediate (Secondary school education) and high (Diploma, degree, PhD); nevertheless, this was similar for both participants addressing Objectives 1 and 2. Remarkably the inclusion criteria for recruiting

participants that could speak English for both objectives of this study may have created the opportunity for capturing most participants that have had at least a primary level of formal education.

Participants' employment status varied for Objective 1. Fifteen were employed (civil servants, farmers, cab driver, plumber or engaged in other personal business), whereas the remaining nine were unemployed. This was also comparable to the 234 self-referred respondents for Objective 2 that were identified as employed.

9.2.1.2 Understanding of the healthcare delivery system



Key

6)-PHC facilities are only meant for minor cases*
7)-PHC facilities are meant for the poor people
8)-PHC facilities should be available where people live*
9)-PHC facilities are only meant for immunisation of children
10)-PHC facilities are only meant for pregnant women
11)-PHC facilities are not important in providing healthcare
12)-PHC facilities should only be used where there are no general hospitals
13)-PHC facilities should only be used when the general hospitals are overcrowded
14)-General hospitals have better equipment compared to the PHC facilities*
15)-General hospitals attend to more serious medical conditions compared to the PHC facilities*
16)-The first health facility that should be attended when sick should be the general hospital

Figure 26: Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2 for the theme on 'Understanding of healthcare delivery in Nigeria'.

Figure 26 above presents a Venn diagram highlighting area of similarities and differences for the theme on 'understanding of healthcare delivery in Nigeria'. The second objective of this study had items tapping into the respondents understanding of the healthcare delivery system as voiced by participants in Objective 1.

The findings from Objective 1 highlighted the need for the PHC facilities to be close to where people live. This was also overwhelmingly agreed upon in the findings for Objective 2 of this study. Most of the participants in Objective 2 believed the PHC facilities were only designed for minor medical cases, as indicated by findings from Objective 1. Less than half of the participant in Objective 2 corroborated the findings from Objective 1 that the PHC facilities are meant for the poor in the community. Despite the indication from the findings of Objective 1 that the PHC facilities were primarily for specific and occasional services, for instance immunisation of children and rendering care to pregnant women, this did not parallel the findings related to Objective 2. It may be possible that most of the respondents for Objective 2 had a better understanding regarding this aspect of the services, in comparison to the participants of Objective 1, who were also fewer in numbers.

There was also a general understanding from the findings of Objective 2 as indicated in the findings for Objective 1 of this study that the general hospitals are meant to treat more serious medical conditions and therefore, better equipped when compared to the PHC facilities. The findings from Objective 2 also revealed that majority of the self-referred service users perceived the general hospital as the first healthcare facility to present to when ill; this was also highlighted by the findings from Objective 1. However, the findings from Objective

1 also shed more light on the fact that despite some service users understanding that the PHC facilities should ideally be the first point to seek care from, there was a lack of confidence in the PHC facilities and therefore, the general hospitals had assumed the position of the first facility for most respondents.

The first objective of this study noted that participants with higher level of education were more inclined to perceive the PHC facilities as facilities that should be within the reach of the people, for first aid measures and also perceived the secondary level of care as referral facilities. Therefore, it was hypothesised from the findings of Objective 1 that there are differences between levels of education and the understanding of the healthcare delivery system among the self-referred service users. Accordingly, this hypothesis was supported by the findings from Objective 2.

9.2.2 Enabling factors

This involves the logistic aspects of obtaining healthcare (Andersen, 1995). For this study, the enabling factors integrated from the first and second objectives included themes on the role of healthcare providers, the role of equipment/facilities, advice from friends, relatives and others and access to healthcare facilities.

9.2.2.1 Role of healthcare providers

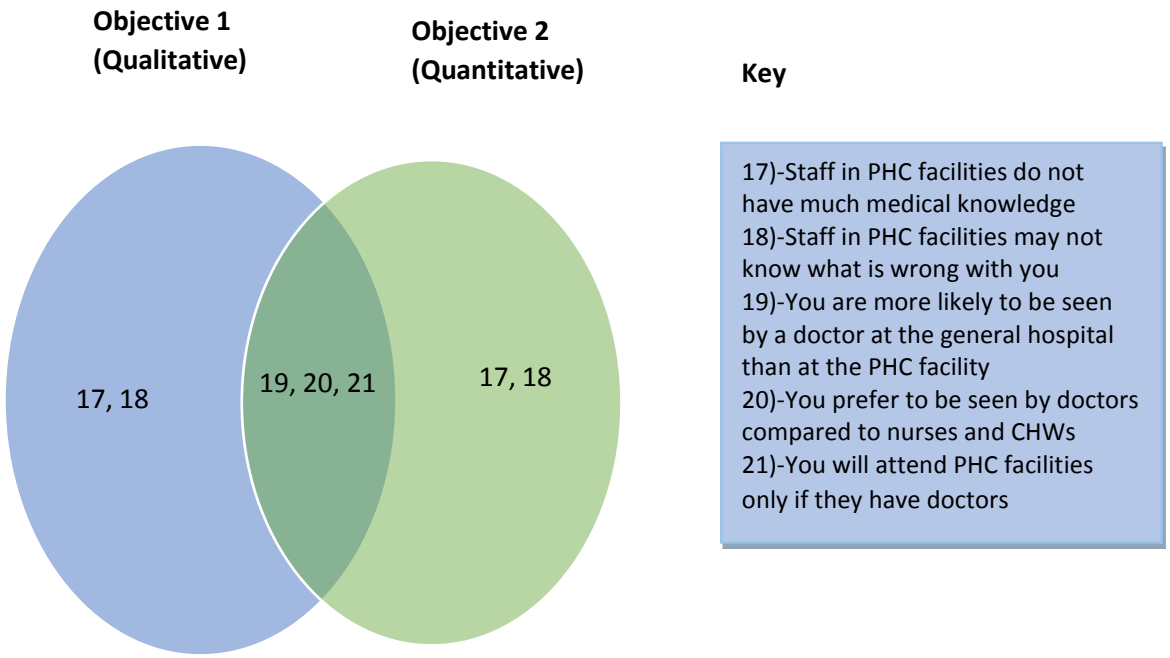


Figure 27: Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2 for the theme on 'Role of healthcare providers'.

Figure 27 above presents a Venn diagram highlighting area of similarities and differences for the theme on 'role of healthcare providers'. The service user participants who addressed Objective 1 of this study voiced their concerns regarding the healthcare providers in the primary level of care. They were not confident with the competencies of the healthcare providers at that level and moreover, they had the notion of probably being given an incorrect medical diagnosis if they were to present at the PHC facilities. These views were also shared by the healthcare providers (principally doctors) that were interviewed. The findings from Objective 2 showed that the respondents were evenly spread based on those that agreed or disagreed that the healthcare providers at the primary level lacked the competencies

required to provide healthcare. However, despite the reservation that some participants had about the healthcare providers at the primary level of care, they still tend to use the PHC facilities, though only as a last resort, as indicated by one of the participants quotes below.

> *"When we are sick we don't go there (**PHC facility**), we come here (**general hospital**) direct, straight. If you know you have not been treated at the appropriate time that you want, then you shift to that place (**PHC facility**)".* *SRSU17, P2-3, L94-98*

Therefore, some of these perceptions may have led to the division in the findings among the service-users, as noted from the findings of Objective 2. This is because the service users are still able to receive care from the PHC facilities, although the PHC facilities are not regarded as the ideal place they would have wished to seek care from.

The findings from Objective 1 also highlighted the service users' preference to be attended to by doctors as compared to nurses and community healthcare workers. Likewise, the healthcare providers' participants in this study also felt the service users generally always want to be seen by a doctor. Accordingly, findings from Objective 2 of this study paralleled the findings of Objective 1 with respondents also indicating that they will be more inclined to utilise the PHC facilities if the PHC facilities have the services of doctors.

In the Objective 1 finding, most of the participants with higher levels of education were perceived to have spoken of their concerns about the competence of the healthcare providers in the PHC facilities. Therefore, it was hypothesised that there are differences between levels of education and perceptions regarding the healthcare providers at the PHC facilities among

the self-referred service users. Accordingly, the findings from Objective 2 supported the assumption made about this relationship.

9.2.2.2 Role of equipment/facilities

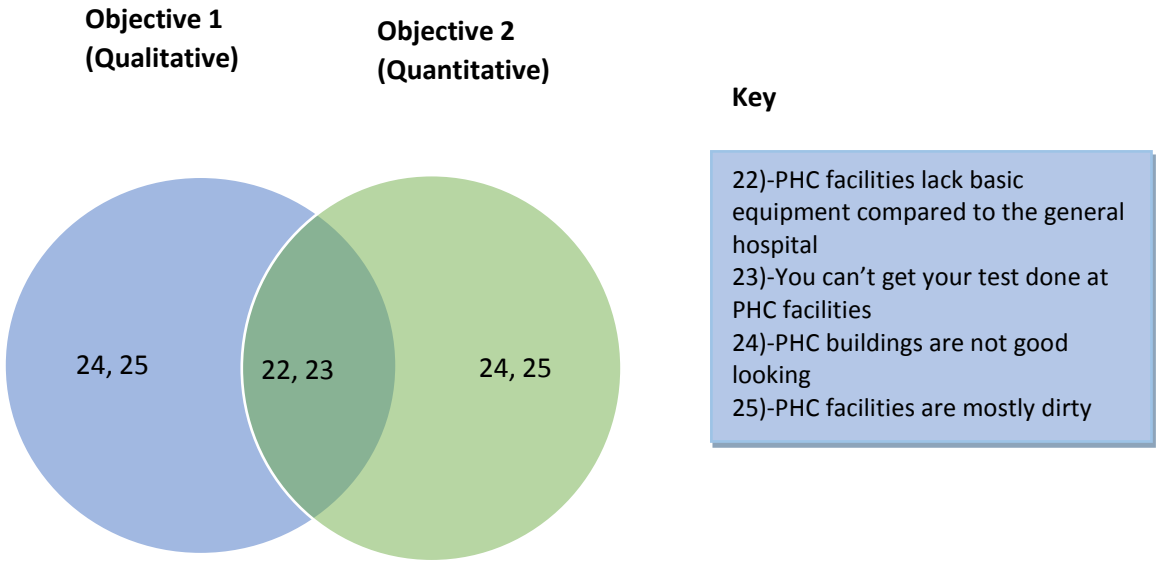


Figure 28: Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2 for the theme on 'Role of equipment or facilities'.

Represented in figure 28 above is a Venn diagram highlighting area of similarities and differences for the theme on 'role of equipment/ facilities. Mixed findings were observed on review of the findings from Objective 1 and the sub-scale on the role of equipment/facilities of Objective 2. For example, the findings from Objective 2 echoed the perception from Objective 1 that the PHC facilities lacked basic equipment when compared to the general hospital and hence, influenced patients' decisions to self-refer. However, the poor appearance of the infrastructures of the PHC facilities identified by the service users and healthcare providers in Objective 1 as possible factors that prompt patients' decision to seek

care at the referral facilities was not replicated from the findings of Objective 2. The likelihood of being able to get a medical test conducted at the PHC facilities was also a concern identified in the qualitative interview of Objective 1; this was however confirmed among most of the respondents for Objective 2.

The differences observed between some of the findings from Objectives 1 and 2 may be related to specific PHC facilities visited or heard of by the respondents, which may have influenced their responses. Similarly, the World Bank (2010), in their study of the PHC facilities in four States (Bauchi, Kaduna, Lagos and Cross River States) in Nigeria established that there are marked differences across and within states in terms of infrastructure and the amenities the PHC facilities have. Additionally, the general impression is that the PHC facilities are in poor condition.

It was also hypothesised from the findings of Objective 1 that there are differences between levels of education among self-referred service users in relation to their perception of equipment at the PHC facilities. This assumption was not supported by the findings from the inferential analysis of Objective 2.

9.2.2.3 Advice from friends, relatives and others

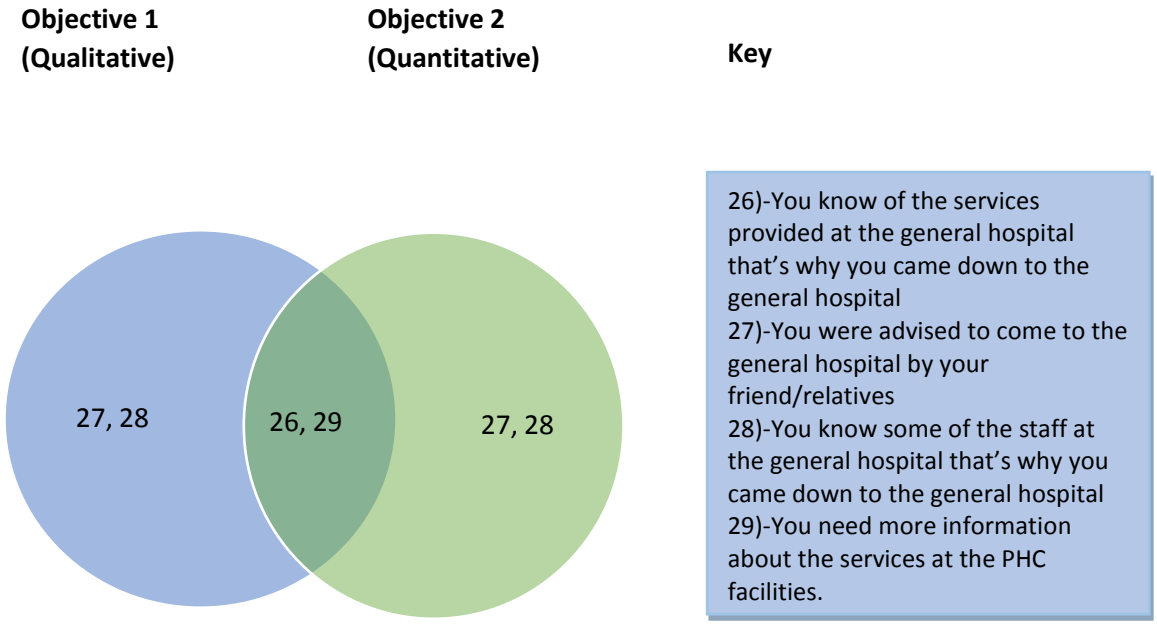


Figure 29: Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2 for the theme on 'Advice from friends, relatives and others'.

Figure 29 above illustrate a Venn diagram showing areas of similarities and differences for the theme on 'advice from friends, relatives and others'. The qualitative findings of Objective 1 highlighted friends' and relatives as being influential in advising the patients to seek care at the referral facilities. This did not parallel the quantitative finding of Objective 2. Knowing a member of staff at the healthcare facility, as indicated in Objective 1, did not also parallel the finding for Objective 2. There was generally agreement between Objectives 1 and 2 regarding the need for more information about the services obtainable at the primary level of care.

Most of the participants for Objective 1 in this study were known to be married. Based on the findings which revealed that friends and relatives contributed in the decision making of the

patients to self-refer, an assumption was made that there are differences between the unmarried and married self-referred service users concerning advice from friends and relatives regarding the utilisation of healthcare facilities. However, the findings from Objective 2 of this study did not support this hypothesis. As indicated earlier, this may be linked with technological advancement, where people are more able to access information from anywhere on their phones and moreover, with modernisation, women especially are increasingly gaining their voice in marriage and hence, taking independent personal decisions that concerns their health in a developing setting like Nigeria.

9.2.2.4 Access to healthcare facility

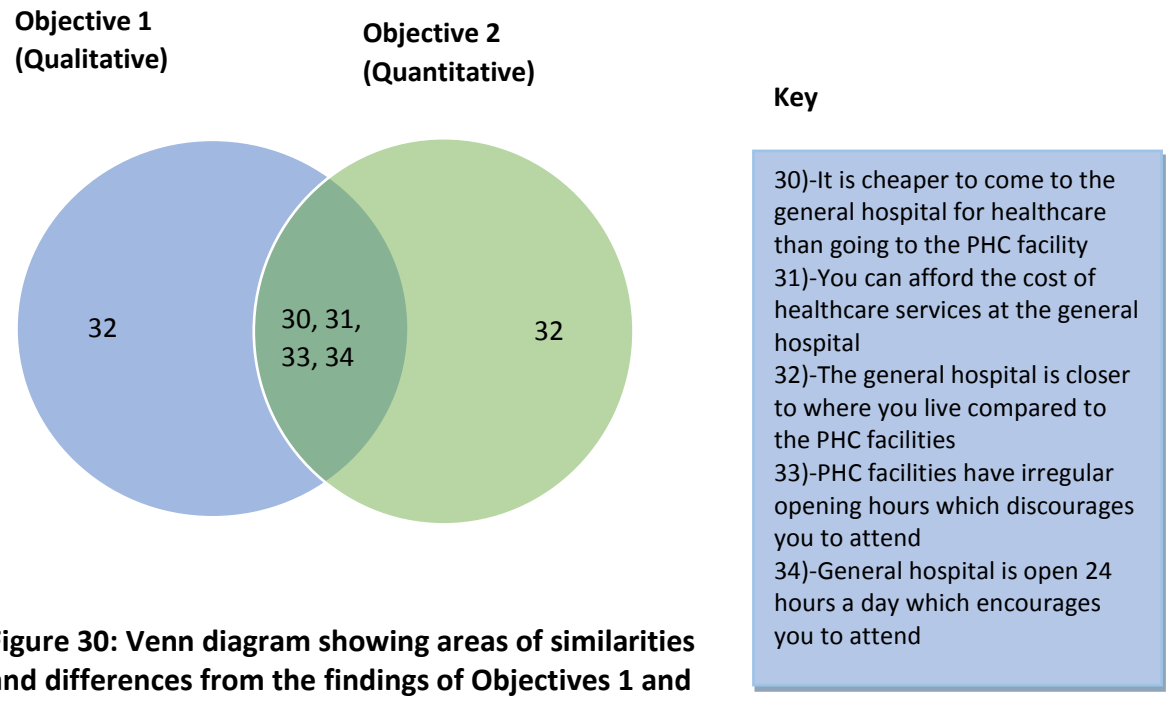


Figure 30: Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2 for the theme on 'Access to the healthcare facility'.

The Venn diagram in Figure 30 above highlights areas of similarities and differences for the theme on 'Access to healthcare facility'. The findings of Objective 1 paralleled majority of the items that tapped into the sub-scale on access to healthcare facility for Objective 2. The

finding in Objective 1 revealed that participants had the belief that the cost of care at the referral facility was expensive when compared with the primary level of care. Despite this perception, it was viewed differently by some of the service users and healthcare providers who noted that if the care provided at the PHC facilities was the same as that offered at the referral facility, there will be no observed difference in the cost of care. Nevertheless, the findings from Objective 1 also revealed that patients were willing to pay what they were charged at the referral facility because they believed they will receive the best care at the facility. This also reflected in the findings of Objective 2, where most of the respondents indicated that they could afford the cost of care at the referral facility.

In addressing Objective 1, several participants perceived the proximity of the referral facility as a motivation to use them, while for others they felt the need to go to the referral facilities that were furthest away from them due to the perception of getting the best care that they felt was only obtainable at the referral facility. The findings from Objective 2 also revealed that the PHC facilities were closer to majority of the respondents; however, they still decided to bypass them. The first and second objectives corroborated the findings that the irregular opening and closing hours of the PHC facilities and the 24-hour operation of the referral facilities were viewed as reasons to bypass the PHC facilities and in turn use the referral facilities.

The findings from Objective 1 also highlighted the socio-economic status of an individual as a likely reason to seek care at the referral level rather than the PHC facilities. The PHC facilities were also perceived as facilities for the poor. Thus, it was hypothesised that there are differences between the employed and unemployed self-referred service-users in relation to

their ability to access the secondary level of care. Accordingly, the inferential analysis of Objective 2 supported the assumption made.

9.2.3 Need factors

The need factors as described by Andersen (1995) are factors that tend to lead to immediate use of the healthcare services. This may include the functional and health problems of the individual, which is defined as either perceived or evaluated need. For this study, the need components integrated from Objectives 1 and 2 included themes on medical symptoms and the severity of medical symptoms.

9.2.3.1 Medical symptoms

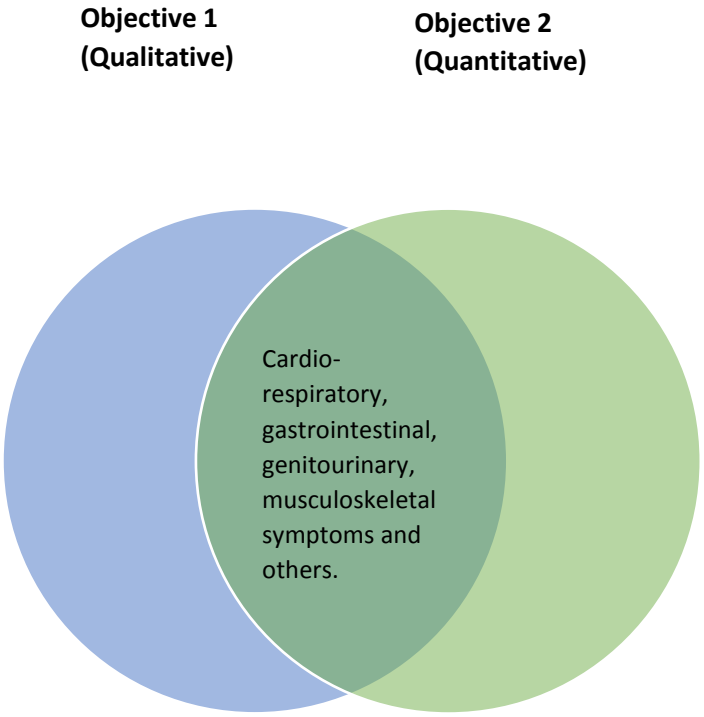


Figure 31: Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2 for the theme on 'Medical symptoms'.

Figure 31 presents a Venn diagram highlighting area of similarities and differences for the theme on 'medical symptoms'. The findings from Objective 1 revealed different medical symptom had warranted the patients to use the referral facility. The findings from Objective 2 also captured various medical complaints that the respondents presented with. One of the hypotheses formulated was that the age of the self-referred service users was associated with the reported medical symptoms. This assumption was supported by the findings from the inferential analysis of Objective 2. Thus, interventions directed towards ensuring an effective referral system may need to consider age appropriate medical care to suite the diverse age population and demanding medical needs.

The WHO (2008) recognised the need for age-friendly PHC centres; hence, there has been an attempt to design kits to help support the PHC centres based on the recognition of the critical role that PHC facilities play in the health of older people in all countries. The principles were based on information, education and appropriate communication to the ageing population. Consideration of the healthcare management system and taking note of the physical environment of the PHC facilities to be adapted to the needs of the ageing population were also part of the principles. Although, these principles were concentrated on the ageing population from findings related to focus group discussions conducted in six countries (Australia, Canada, Costa Rica, Jamaica, Malaysia and the Philippines), there is need for this concept to be extended to capture the needs of other age groups and moreover, to be contextualised to each setting.

9.2.3.2 Severity of symptoms

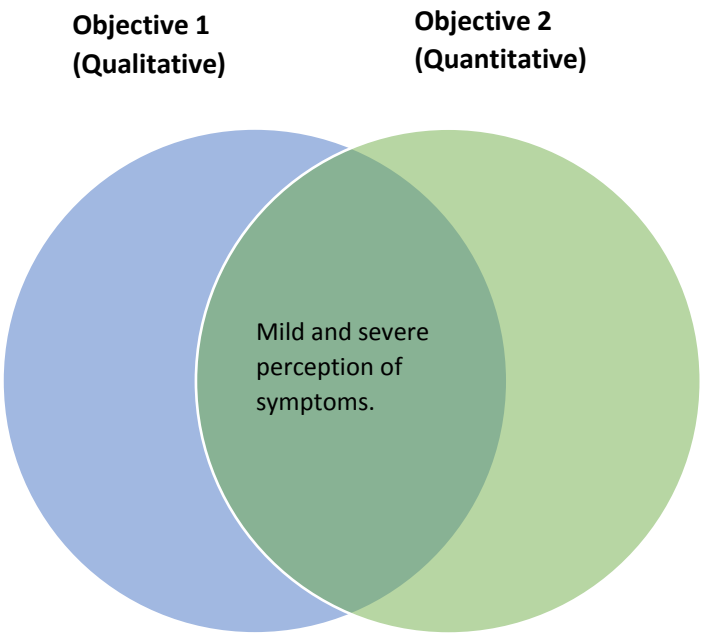


Figure 32: Venn diagram showing areas of similarities and differences from the findings of Objectives 1 and 2 for the theme on 'Severity of symptoms'.

The Venn diagram in Figure 32 above highlights areas of similarities and differences for the theme on 'severity of symptoms'. Objective 1 of this study identified that the level of severity of the participants' medical symptoms varied between mild to severe. For Objective 2, the perception of severity spread across, very mild, mild, moderate, severe and very severe, with majority of the respondents claiming their symptoms were moderate in severity.

Findings from Objective 1 also noted that most of the participants that identified their symptoms as mild were females. Therefore, one of the hypotheses formulated was that there are differences between the male and female self-referred service users in relation to their perception of the level of severity of their symptoms. This hypothesis was however not supported by the findings from the inferential analysis of Objective 2.

9.3 Relating the findings to the theoretical framework

The findings from this research fitted well with the model adopted for the theoretical framework of this study. The initial Andersen's behavioural model of healthcare utilisation was employed to guide and shape this study. The model posits that healthcare utilisation is related to the predisposing, enabling and need characteristics of an individual (Andersen, 1995). The flexibility of the model proved significant for this study. Consequently, it helped to advance the knowledge on healthcare self-referral by conceptualising the factors linked with healthcare self-referral and helped to find the relationships between the different factors identified to be linked with healthcare self-referral.

The findings from this study captured the different aspects that fitted within the predisposing, enabling and need components of Andersen's model. The researcher was however conscious of not adapting the study to fit the model but rather adapting the model to fit the study. Thus, precautions were taken throughout the research process. For example, the semi-structured qualitative interviews were allowed to flow with prompts and not rigidly designed questions to fit the model. The analysis of the qualitative findings also made sure that the themes came to light prior to applying the theoretical framework.

The relationship between some of the factors within the predisposing, enabling and need components of the model were subsequently examined in the quantitative analysis of Objective 2. This determined how the factors interact with each other among the self-referred service users based on the hypotheses that emanated from the qualitative findings of Objective 1 and the literatures. Accordingly, the findings confirmed the existence of some relationships between the components of Andersen's model.

9.4 Methodological considerations

Given the dearth of studies on healthcare self-referral in the Nigerian context, the use of exploratory sequential mixed method was deemed appropriate to initially explore this concept among the service users and healthcare providers, subsequently followed by examining the findings among a larger group of self-referred service users. The success of the mixed method design for this study was demonstrated by the corroboration of a large part of the findings of the qualitative and quantitative approaches and where applicable reasons for discrepancies provided.

The data collection and analysis methods utilised in the different approaches (qualitative and quantitative) were found appropriate in achieving the objectives of this study. The in-depth semi-structured interview appeared suitable for both the service users and healthcare providers in the qualitative arm of the study. This provided flexibility for the participants in deciding when they wanted to be interviewed. The format of the semi-structured interview also ensured flexibility for the participants in terms of what they wanted to say and at the same time being guided by the research objectives. Framework analysis adopted for analysing the qualitative data proved appropriate given the large number of interviews conducted (twenty-four service users and eighteen healthcare providers). The five key stages (familiarisation with the data, identifying a thematic framework, indexing, charting and mapping and interpretation) of the framework analysis made sure that all aspects of the data were considered. A useful comparison within and between data was also ensured in a traceable manner leading to the formation of themes and patterns.

In the quantitative approach, the interviewer administered form of questionnaire appeared most appropriate for the data collection of the quantitative data. The self-administered form of questionnaire was a probable option based on the potential ease of collecting large amounts of data within a short period; however, in Nigeria it is possible for some people to be able to understand and communicate in English, because English language is the general language, but find it difficult to read and write. Therefore, to ensure uniformity, the interviewer administered form of questionnaire was adopted. This also ensured the respondents could seek clarity to some questions where they were not sure. Likewise, the pilot study of the quantitative phase played a vital role in addressing some of the potential

difficulties that may have emerged in the main study, such as the recruitment of the participants, comprehension of the instrument and the recruitment of the research assistants.

Furthermore, in the designing of the data collection tool for the quantitative phase, face and content validity were ensured from the patients, healthcare providers and some researchers in the field of healthcare self-referral. Accordingly, the reliability of the instrument was assessed using Cronbach's alpha which subsequently resulted in excluding items for the sub-scales pertaining to the expectations of service users and government regulations (policies). Therefore, future studies may consider developing more appropriate measures of tapping into service user's expectations and government regulations on how they impact on healthcare self-referrals among service users.

More information might have been added to the findings of this study by investigating the diagnoses of each of the respondents within Andersen's need components in the quantitative phase. For example, Andersen (1995) noted that the medical symptoms and perception of the severity of the symptoms are the patients' perceived need which may be subjective. Andersen added that evaluated needs are based on a healthcare providers' judgment about an individual's health status and their need for medical care. This may be perceived as a more objective measure. However, the potential difficulty of a researcher having access to a patients' diagnosis in primary research presents ethical issues. For example, it would not be appropriate for a researcher to access patients' case notes, nor for a healthcare provider to divulge a patient's diagnosis, whilst in addition, the patients may not know their specific

diagnosis. Therefore, this practical and ethical issue needs further consideration in order to expand on this area of research.

One of the weaknesses of this study was the inclusion of respondents who could only speak English; hence, some information may have been missed by not including patients who were unable to speak English. The difficulty envisaged was that as there are over 250 ethnic groups in Nigeria, and over twenty languages spoken in Niger State (Lewis et al., 2016; Niger State, 2013; Kombe et al., 2008), it would have been difficult for the researcher to hire different linguists who speak the numerous languages in Niger State to translate the questionnaire and information sheets. In addition, it was beyond the researcher's budget due to the limited resources available for the research. Therefore, the study may be criticised for its bias towards the population literate in English in Nigeria and consequently, the findings are limited to the same population. However, the findings from this study still provided valuable insight about healthcare self-referral, as it applies to the Nigerian context. Thus, further studies can expand on the present study by translating and adapting the tool to also capture the non-English speaking population in Nigeria.

Just as the healthcare referral facilities differs (secondary, tertiary and quaternary), so do the investigations into healthcare self-referral. For example, studies have examined this problem relating it to circumventing the primary level of care to either the secondary or tertiary level of care. In addition, the specialist areas in the referral facilities concentrated on are the emergency department, specialist clinics or the general outpatients' department of the referral facilities. Therefore, this presents challenges in effectively comparing the findings

across studies due to the different specialists and level of referral facility that may have been investigated.

In the qualitative phase, 200 Naira (less than 50 pence) top up voucher was sent to the mobile phone of the service user participants after the interview, as a form of appreciation for taking their time to participate in the research. The researcher was aware of the debate concerning the area of incentive; hence, like the suggestion made by Braun and Clarke (2013), the incentive was not a tempting one that participants would subject themselves to harm that they would not usually subject themselves to. The token was also not given in a direct monetary form. In addition, to avoid bias, the researcher made sure that the discussion about the token offered was presented after the interview, so that their participation was not influenced by the token but was rather voluntary.

During the conduct of Objective 1 (qualitative approach) of this study, the researcher made the service users aware that he was a PhD student, while for the participants who are healthcare providers, the researcher also made them aware that in addition to being a PhD student, he also had a background as a healthcare provider. The disclosure of his background to participants who are healthcare providers was perceived as enabling due to the level of freedom the participants expressed in the discussion of the subject. However, one of the researcher's concerns and possible limitations with the healthcare providers' interview was the likelihood that the healthcare providers might have assumed that the researcher was aware of some of the factors associated with healthcare self-referral in the Nigerian context. Therefore, some of those factors might not have been voiced by the healthcare providers.

9.5 Implications for policy and practice

The findings from this study highlighted several factors that may be linked with the service users bypassing the primary level of care to the referral facilities in the Nigerian setting. Notably, information from the service users also corroborated that of the healthcare providers. Therefore, the findings can also be viewed as experiences the service users have been through with the healthcare system which reflects the present state of the healthcare system in Nigeria. Conspicuously, the identified factors are complex and intertwined and consequently, require a multifaceted approach to address them.

Studies have shown that marriage can influence health, through its effect on healthcare access and use. Marriage is associated with fewer doctors visit, shorter hospital stays and reduced risk of nursing home admission. This in turn leads to lower healthcare cost. Its been shown that married people rely on their spouses for informal care. Especially, wives are likely to provide informal care for their husbands at home, therefore the effect of marriage on healthcare cost may be larger for men (Wood, Goesling, and Avellar, 2007). A large proportion (80%) of the participants who self-referred in this study were married. This may be due to the inclusion and exclusion criteria for this study whereby only participants from 18 years and above were included which may have led to capture most participants within the married age bracket. In addition, the average age at first marriage in Nigeria is assumed to be around 20 years of age (Ekane, 2013). Though the proportion of married male and female participants were similar (80.9% and 79.4% respectively), nevertheless, in general, the self-referred female participants (65%) were more than their male (35%) counterparts.

In line with the above findings, studies have also highlighted that majority of women utilising healthcare services may be related to the different changes, such as physiological, biological and reproductive issues women experience when compared with their male counterparts, which may prompt regular visits to healthcare facilities (Nnonyelu and Nwankwo, 2014). Therefore, the provision of more gynaecological and obstetrics services within the PHC facilities may likely decrease the burden of self-referral on the higher level of care. Another implication of this finding is that, married partners are likely to interact with one another to seek advice and approval on where to receive care which may culminate in bypassing their PHC facilities. In line with the findings of this study, there is apparent lack of knowledge among most service users regarding their understanding of the healthcare delivery system in Nigeria. Thus, there is need for enlightening the service users on the appropriate level of care to use when they become sick. As indicated, patients' education could be enhanced using formal and informal mediums, such as television, radio, newspapers, disseminating information through churches, mosques and by the healthcare providers educating the service users who make use of their facilities.

There was a general assumption among service users in this study that the PHC facilities are meant for the poor population and primarily for the rural areas. Similarly, an association was found between employment status of the self-referred service users and access to the secondary level of care. Among the healthcare providers, the availability of the PHC facilities was perceived as inadequate. It was also highlighted that the sighting of these facilities are not given consideration. As such, the WHO recommends that access to PHC facilities should be within a radius of 5 kilometres of urban or rural settlements (International Monetary Fund,

2007). Similarly, the Federal Ministry of Health, Nigeria (2010) indicated that the PHC facilities are not strategically placed and the health system is highly fragmented with weak connections across the different levels of healthcare delivery in Nigeria. Furthermore, the Nigerian NHIS has struggled to gain the coverage required for the population to enable equitable access to healthcare, with only approximately 3% of the total population reported to be presently covered (Dutta and Hongoro, 2013). Therefore, the government has a major role to play in the provision of adequate PHC facilities for the populace and developing a contextual model of healthcare financing to help address the massive inequality in accessing healthcare in Nigeria.

Likewise, given the findings from this study, the government intended 10,000 PHC facilities to be constructed all over Nigeria needs serious consideration. To ensure this project is successful, some of the considerations should include; mapping and appropriate locations of the facilities to avoid duplication of the facilities where they already exist. In turn, each facility should be directly linked to a higher level of care where appropriate support can be provided when the need for a referral arises. In addition, while the constructions of this facilities are ongoing, the government should also in tandem ensure the training of the needed manpower that will provide services in these facilities. This will ensure that when these facilities are completed, there are readily available healthcare providers to staff the facilities. In addition, the cadre of healthcare providers should incorporate doctors in the provision of healthcare services in these facilities.

Notably, the preference among the service users to be attended to by doctors was apparent in this study. However, Nigeria has remained within the confines of the model of the workforce defined by the WHO (1978) during the Alma-Ata Declaration for developing countries to make use of auxiliary healthcare providers, such as community healthcare providers at the primary level of care, if needed. Nevertheless, the same document recorded that as countries advance they will need to redefine their PHC accordingly. Therefore, there is a need for the government to design measures of integrating the services of doctors within the PHC facilities to help boost the confidence of the service users in utilising those facilities. For example, the family physicians who are medical doctors, ideally trained to offer PHC services but are rather engaged with providing care at referral facilities should be provided with the necessary resources to handle the PHC facilities (Oyedeji and Abimbola, 2014). In addition, recognising the shortage of doctors in Nigeria, the National Youth Service Corps (NYSC) programme is a laudable programme that the government and the populace can benefit from. This programme ensures all newly graduated students of different professions offer mandatory service for a year within communities in Nigeria (NYSC, 2017). Therefore, a more central approach should be adopted in deploying the newly graduated medical doctors to handle the PHC facilities around the country, under supervision. This will ensure that the PHC facilities have continuous service from doctors and promote the development of trust in the PHC facilities among the service users.

This research demonstrated that one of the reasons that service users lack confidence in the healthcare providers at the PHC facilities is related to their judgement of the medical knowledge of the nurses and community health workers who are the major healthcare

providers at that level and whom they view as being inadequate. It was also ascertained that levels of education were associated with the perception of the healthcare providers at the primary level of care. Consequently, the healthcare providers within the primary level need to be trained and re-trained frequently on the new and existing management of the common medical issues among their population.

This study highlighted the apparent lack of knowledge among most service users regarding their understanding of the healthcare delivery system in Nigeria. Additionally, a relationship was also established between levels of education and understanding healthcare delivery among the self-referred service users. Thus, there is need for enlightening the service users on the appropriate level of care to use when they become sick. As indicated, patients' education could be enhanced using formal and informal mediums, such as television, radio, newspapers, disseminating information through churches, mosques and by the healthcare providers educating the service users who make use of their facilities.

Despite different frameworks instituted by the government to help improve the quality of healthcare services, they still struggle to ensure adequate supervision of these facilities (FMoHN, 2010). It is the duty of the healthcare providers to be present at their respective facilities and for the PHC facilities to be open as scheduled. The likelihood of poor supervision of the PHC facilities might have contributed in the casual services provided by the healthcare providers, as highlighted by the service users in the findings of this study. However, a conducive environment should also be provided for those working in the PHC facilities. A functional supervisory or monitoring team is extremely paramount in making sure these

facilities (PHC) operate as mandated, whereby healthcare providers abandoning their duties are penalised, whereas those offering exceptional services are rewarded to boost their morale.

Finally, part of the government's policy has been to look at different ways of strengthening the healthcare referral system, which include monitoring referral outcomes and mapping network linkages for a two-way referral system (FMoHN, 2010). Though these are laudable concept, one of the areas the government may also need to consider is providing primary level of care with some level of authority/power. For example, all service users should be made to register with designated PHC facilities to serve as their primary care provider. By so doing, this will serve as 'gate keeping' for the referral facilities, which is similar to what is obtainable in other settings such as the UK, Netherlands and Australia (de Valk et al., 2014; McGuigan and Watson, 2010; Masso et al., 2007). In addition, this will enable tracking the pathway of patients care and easy access to required health information. However, this may only be achievable if the primary levels of care are made functional by equipping them with the necessary facilities and staff to ensure they operate in an effective manner.

9.6 Implications for future research

This study identified several factors linked with healthcare self-referral and the relationships between some of the factors towards our understanding of healthcare self-referral, as it applies to the Nigerian context. Though the examination of the relationship between the identified factors was not exhaustive in this study, future studies should aim to expand our

knowledge by further investigating the relationships of other factors not captured in this study.

This study only focused on the service users and healthcare providers, future studies should also aim to obtain the views of policy makers as well.

One of the limitations of this study was that it concentrated only on service users who could speak English; thus, its generalisation beyond that population is limited. Therefore, there is the need to extend this study among the non-English speaking service users in Nigeria.

However, the findings from this study may be extended to other low resource settings with similar healthcare delivery, though with caution, because the variables for the quantitative data collection tool were grounded in the qualitative findings from the Nigerian setting. In addition, healthcare delivery also differs among the different African countries, therefore, those salient differences should also be taken into context. For example, Ghana has about 50% National Health Insurance Service coverage (Blanchet, Fink, and Osei-Akoto, 2012), contrary to the 3% coverage in Nigeria which makes a huge difference and likely to impact on how individuals utilise healthcare services. In Ethiopia there is an institutionalised mechanism for providing services to the poor free of charge through a systematic fee-waiver system and also a standardised exemption for some services provided to all citizens free of charge regardless of their level of income (USAIDS, 2012). This is unlike the Nigerian system where it is majorly out of pocket payment from the patients and likely to influence pattern of

utilisation as well. Nevertheless, this study may serve as a framework that can be adapted in different context as applicable.

In addition, there were factors related to government policies and the expectations of the service users that were identified in the qualitative phase but were not examined in the quantitative phase due to the failure of the items to meet the internal consistency of the sub-scale. Therefore, future studies may generate items with appropriate internal consistency that fits within the sub-scale of government policies and expectation of service users. Similarly, the questionnaire developed for this study may also be adapted and validated in different contexts as applicable.

This study was carried out in the North-Central part of Nigeria. Therefore, it may also be important to examine the concept of healthcare self-referral within other regions (North-East, North-West, South-East, South-South, South-West) of Nigeria, due to the diverse population in the country. This will help identify any geographical differences and consequently, help the government tailor their policies accordingly if indicated.

In addition to examining the symptoms that patients self-refer with, there is also a need for future primary studies to examine the specific diagnosis given to the patients. This may provide a complete picture of the perceived and evaluated needs as noted by Andersen (1995). Accordingly, the diagnosis will also help identify the prevalence of specific self-referred medical conditions which may subsequently allow for instituting adequate

management plans, support or guidelines for the primary level of care in managing the conditions to ease the workload experienced by the referral facilities.

9.7 Concluding remarks

This study contributes to the existing literatures on healthcare self-referral, by adopting the exploratory sequential mixed method design, it adds to the limited literatures on mixed methods in this field. Likewise, the initial Andersen's model on healthcare utilisation helped to provide a theoretical framework for this study which further expands the knowledge on how the components of predisposing, enabling and need factors shape the concepts in healthcare self-referral. The perspective of the healthcare providers gained from this study also helped to increase our knowledge from the limited available studies on this subject among the healthcare providers. Additionally, this study examined the relationship between some of the different factors as they apply to the self-referred service users, which further advanced our knowledge in this area on how different factors relate and impact on healthcare self-referral.

Specifically, in Nigeria, this is an important and under researched area. Therefore, this study contributes to the existing knowledge. Moreover, it provides a broad foundation for the Nigerian setting whereby other studies can build on. In addition, the findings from this study have significant implications for planning, practice and policy on instituting an effective and efficient healthcare referral system in the country.

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Appendices

Appendix 1: Participant information sheet (Service users) – Objective 1

STUDY TITLE: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDER PERSPECTIVE

Researcher:

The primary researcher for this study is Francis Koce who is carrying out this research as part of his Master of Philosophy (MPhil)/Doctorate of Philosophy (PhD) in Public Health at the University of Bedfordshire, UK.

This is an invitation to take part in a research project. It is important to read through this information sheet to understand why this research is being carried out and what it will involve before deciding to participate. Please, if you need further information or clarification about this research, you can contact the research team whose details are provided at the end of this information sheet.

What is the purpose of the study?

This study aims to gather information to understand why service users self-refer directly to the secondary health facilities without going through the primary health facility.

What would taking part involve?

You have been approached because you are a self-referred service user of the public secondary healthcare facility (general hospital) in Niger state and you will be able to provide information and knowledge on the subject of healthcare self-referral.

After notifying the researcher of your interest to participate in this research, you will be contacted to book a convenient date, time and place of your choice to carry out a face to face individual interview with the researcher. This is estimated to last between 30-45 minutes. On the day of the interview a consent form will be signed by you to indicate your approval to participate in this research. I will request to audio record the discussion and also make anonymised notes when necessary about the

topics being discussed. You will be offered 200 naira recharge voucher after the interview as a token for your time.

How will my confidentiality be maintained?

Your details will be treated in a confidential manner. You will remain anonymous during and after this research. Thus, the recording from the interview will be transcribed and labelled with pseudonym. The transcribed documents will be kept separately and securely from the audio recordings. The information gathered will be stored in a password protected flash drive of which only the research team will have access to these documents. This document will be subsequently destroyed on completion of this research.

What are the risks of participating in this study?

There are no anticipated hazards or risk resulting from participating in this research.

What are the benefits of participating in this study?

The results of this study may benefit people using these healthcare facilities and also the health professionals by identifying issues associated with the current referral practise. These can be used for making recommendations for the implementation of future policy on operating an effective referral system in Nigeria.

What are your rights to participate in this study?

Your participation in this study is strictly voluntary; you have the right to refuse to take part or withdraw at any time. If you chose to refuse to take part or to withdraw from the study you will not receive any penalty or loss of any benefits to which you are entitled. Your name and any personal details will not be made available to third parties.

Who will answer your questions?

If you have any queries about taking part in this study please contact:

Principal investigator: Francis Koce

E-mail: Francis.Koce@study.beds.ac.uk

Mobile number: +44(0)7553838874.

Supervisor: Prof Gurch Randhawa

E-mail of supervisor: gurch.randhawa@beds.ac.uk

Telephone number of supervisor: +44 (0)1582 743797

University of Bedfordshire

Appendix 2: Participant information sheet (Healthcare providers) – Objective 1

STUDY TITLE: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDER PERSPECTIVE

Researcher:

The primary researcher for this study is Francis Koce who is carrying out this research as part of his Master of Philosophy (MPhil)/Doctorate of Philosophy (PhD) in Public Health at the University of Bedfordshire, UK.

This is an invitation to take part in a research project. It is important to read through this information sheet to understand why this research is being carried out and what it will involve before deciding to participate. Please, if you need further information or clarification about this research, you can contact the research team whose details are provided at the end of this information sheet.

What is the purpose of the study?

This study aims to gather information to understand why service users self-refer directly to the secondary health facilities without going through the primary health facility.

What would taking part involve?

You have been approached because you are a healthcare provider in a public healthcare facility in Niger state and you are able to provide knowledge and information on the subject of healthcare self-referral.

After notifying the researcher of your interest to participate in this research, you will be contacted to book a convenient date, time and place of your choice to carry out a face to face individual interview with the researcher. This is estimated to last between 30-45 minutes. On the day of the interview a consent form will be signed by you to indicate your approval to participate in this research. I will request to audio record the discussion and also make anonymised notes when necessary about the topics being discussed.

How will my confidentiality be maintained?

Your details will be treated in a confidential manner. You will remain anonymous during and after this research. Thus, the recording from the interview will be transcribed and labelled with pseudonym. The transcribed documents will be kept separately and securely from the audio recordings. The information gathered will be stored in a password protected flash drive of which only the research team will have access to these documents. This document will be subsequently destroyed on completion of this research.

What are the risks of participating in this study?

There are no anticipated hazards or risk resulting from participating in this research.

What are the benefits of participating in this study?

The results of this study may benefit people using these healthcare facilities and also the health professionals by identifying issues associated with the current referral practise. These can be used for making recommendations for the implementation of future policy on operating an effective referral system in Nigeria.

What are your rights to participate in this study?

Your participation in this study is strictly voluntary; you have the right to refuse to take part or to withdraw at any time. If you chose to refuse to take part or to withdraw from the study, you will not receive any penalty or loss of any benefits to which you are entitled. Your name and any personal details will not be made available to third parties.

Who will answer your questions?

If you have any queries about taking part in this study, please contact:

Researcher: Francis Koce

E-mail: Francis.Koce@study.beds.ac.uk

Mobile number: +44(0)7553838874.

Supervisor: Prof Gurch Randhawa

E-mail of supervisor: gurch.randhawa@beds.ac.uk

Telephone number of supervisor: +44 (0)1582 743797

University of Bedfordshire

Appendix 3: Informed Consent Form (Objective 1)

NHREC Protocol Number NHREC/01/01/2007-- 09/03/2015

Approval dates from 09/04/2015 to 08/04/2016

STUDY TITLE: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDERS PERSPECTIVE

Please circle or tick as appropriate:

Have you received, read and understood a copy of the Information Letter?	Yes	No
Do you understand that your participation in this study is entirely voluntary?	Yes	No
Do you understand that you are free to refuse participation and have the right to withdraw at any time for any reason without any penalty or loss to any benefit you ar entitled to and that all data collected from you at that time before analysis will be removed?	Yes	No
Do you understand that the interview will be tape recorded?	Yes	No
Do you understand that your name will not be displayed in any reports, presentations or publications and that you will be assigned a pseudonym for this purpose?	Yes	No
Do you confirm that you have had an opportunity to ask questions and that your questions have been answered to your satisfaction?	Yes	No
Are you happy to be contacted to give further clarification to any of your data?	Yes	No

Name of participant _____

Signature/thumb print_____

Date_____

Researcher: Francis Koce

Email: Francis.koce@study.beds.ac.uk

Telephone: +44(0)7553838874

Supervisor: Prof. Gurch Randhawa

Email: gurch.randhawa@beds.ac.uk

Telephone: +44 (0)1582 743797

Thank you for your participation!

Please complete and return this form to the research staff.

Appendix 4: IHR Ethics approval letter (Objective 1)

University of Bedfordshire

Institute for Health Research
Putteridge Bury
Hitchin Road
Luton
Beds LU2 8LE

16 February 2015

Francis Koce

Student number: 1316481

Dear Francis Koce

Re: IHREC Application No: IHREC464

Project Title: Understanding healthcare self-referral in Niger state (Nigeria): The service users and healthcare providers perspective

The Ethics Committee of the Institute for Health Research has considered your revised application and has decided that the proposed research project should be approved with no further amendments and a note.
Please note that parts of the advertisement text are not entirely legible. Do consider a different background/font combination.

In addition, please note that if it becomes necessary to make any substantive change to the research design, the sampling approach or the data collection methods a further application will be required.

Yours sincerely

Dr Yannis Pappas

Head of PhD School, Institute for Health Research

Chair of Institute for Health Research Ethics Committee

Appendix 5: NHREC Ethics approval letter (Objective 1)

National Health Research Ethics Committee of Nigeria (NHREC)

Promoting Highest Ethical and Scientific Standards for Health Research in Nigeria

Federal Ministry of Health

NHREC Protocol Number NHREC/01/01/2007----09/03/2015
NHREC Approval Number NHREC/01/01/2007----09/04/2015
Date: 14th April, 2015

Re: Understanding healthcare self----referral in Niger state (Nigeria): The service users and healthcare providers perspective

Health Research Committee assigned number: NHREC/01/01/2007
Name of Student Supervisor: Prof. Gurch Randhawa
Name of Student Investigator: Francis Koce
Address of Student Investigator: University of Berdfordshire,
Institute for Health Research
Putteridge Bury Hitchin Road Luton
Beds LU2 8LE
Francis.koce@study.beds.ac.uk
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Date of receipt of valid application: 09/03/2015
Date when final determination of research was made: 09/04/2015

Notice of Expedited Committee Review and Approval

This is to inform you that the research described in the submitted protocol, the consent forms, advertisements and other participant information materials have been reviewed and *given expedited committee approval by the National Health Research Ethics Committee.*

This approval dates from 09/04/2015 to 08/04/2016. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study.* In multiyear research, endeavour to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the HREC. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Signed

Clement Adebamowo BMChB Hons (Jos), FWACS, FACS, DSc (Harvard)
Chairman, National Health Research Ethics Committee of Nigeria (NHREC)

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URL: http://www.nhrec.net,

Appendix 6A: Approval by gatekeepers (Hospital Management Board, Niger state)

HOSPITALS MANAGEMENT BOARD

MINNA, NIGER STATE.

Block F,
Old Secretariat Complex,
Private Mail Bag 220,
Minna, Niger State-Nigeria.
E-mail: nigershmb@ymail.com

Telephone:.....

Our Ref: HMB/MED/PER/44/I/

Your Ref: _____

Date: 11th November, 2014.

Heads of Hospitals Services,

General Hospital, Wushishi.

RE: HEALTH RESEARCH PROJECT

Above mentioned matter refers, please.

2. The bearer **Mr. Francis G. Koce** has approval of the management to conduct research on health care referral in our facilities.

3. Please extend to him all necessary assistance and cooperation.

4. Thank you.

Dr. Abdullahi Mohammed,
Director Medical Services.

Appendix 6B: Approval by gatekeepers (Hospital Management Board, Niger state)

HOSPITALS MANAGEMENT BOARD

MINNA, NIGER STATE.

Block F,
Old Secretariat Complex,
Private Mail Bag 220,
Minna, Niger State-Nigeria.
E-mail: nigershmb@ymail.com

Telephone:.....

Our Ref: HMB/MED/PER/44/I/

Your Ref: _____

Date: 11th November, 2014.

Heads of Hospitals Services,

General Hospital, Lapai.

RE: HEALTH RESEARCH PROJECT

Above mentioned matter refers, please.

2. The bearer **Mr. Francis G. Koce** has approval of the management to conduct research on health care referral in our facilities.

3. Please extend to him all necessary assistance and cooperation.

4. Thank you.

Dr. Abdullahi Mohammed,
Director Medical Services.

Appendix 6C: Approval by gatekeepers (Hospital Management Board, Niger state)

HOSPITALS MANAGEMENT BOARD

MINNA, NIGER STATE.

Block F,
Old Secretariat Complex,
Private Mail Bag 220,
Minna, Niger State-Nigeria.
E-mail:nigershmb@ymail.com

Telephone:.....

Our Ref: HMB/MED/PER/44/I/

Your Ref: _____

Date: 11th November, 2014.

Heads of Hospitals Services,

General Hospital, Sabon Wuse.

RE: HEALTH RESEARCH PROJECT

Above mentioned matter refers, please.

2. The bearer **Mr. Francis G. Koce** has approval of the management to conduct research on health care referral in our facilities.

3. Please extend to him all necessary assistance and cooperation.

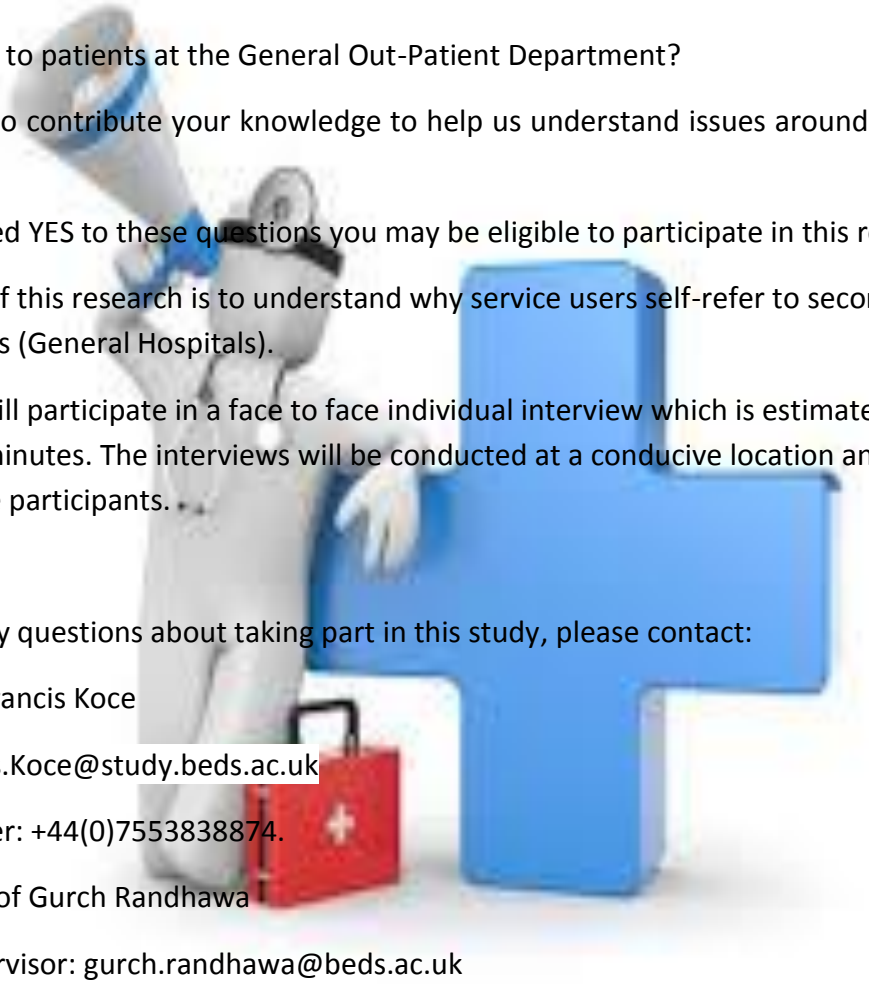
4. Thank you.

Dr. Abdullahi Mohammed,
Director Medical Services.

Appendix 7A: Advertisement for Doctors

Be a part of a research study!!

UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDERS PERSPECTIVE



Are you a doctor?

Do you attend to patients at the General Out-Patient Department?

Do you want to contribute your knowledge to help us understand issues around healthcare self-referral?

If you answered YES to these questions you may be eligible to participate in this research.

The purpose of this research is to understand why service users self-refer to secondary health facilities (General Hospitals).

Participants will participate in a face to face individual interview which is estimated to last about 20-40 minutes. The interviews will be conducted at a conducive location and time suitable to the participants.

If you have any questions about taking part in this study, please contact:

Researcher: Francis Koce

E-mail: Francis.Koce@study.beds.ac.uk

Mobile number: +44(0)7553838874.

Supervisor: Prof Gurch Randhawa

E-mail of supervisor: gurch.randhawa@beds.ac.uk

Phone number of supervisor: +44 (0)1582 743797

Appendix 7B: Advertisement for Nurses and Community Health Workers

Be a part of a research study!!

UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDERS PERSPECTIVE

Are you a nurse or community health worker?

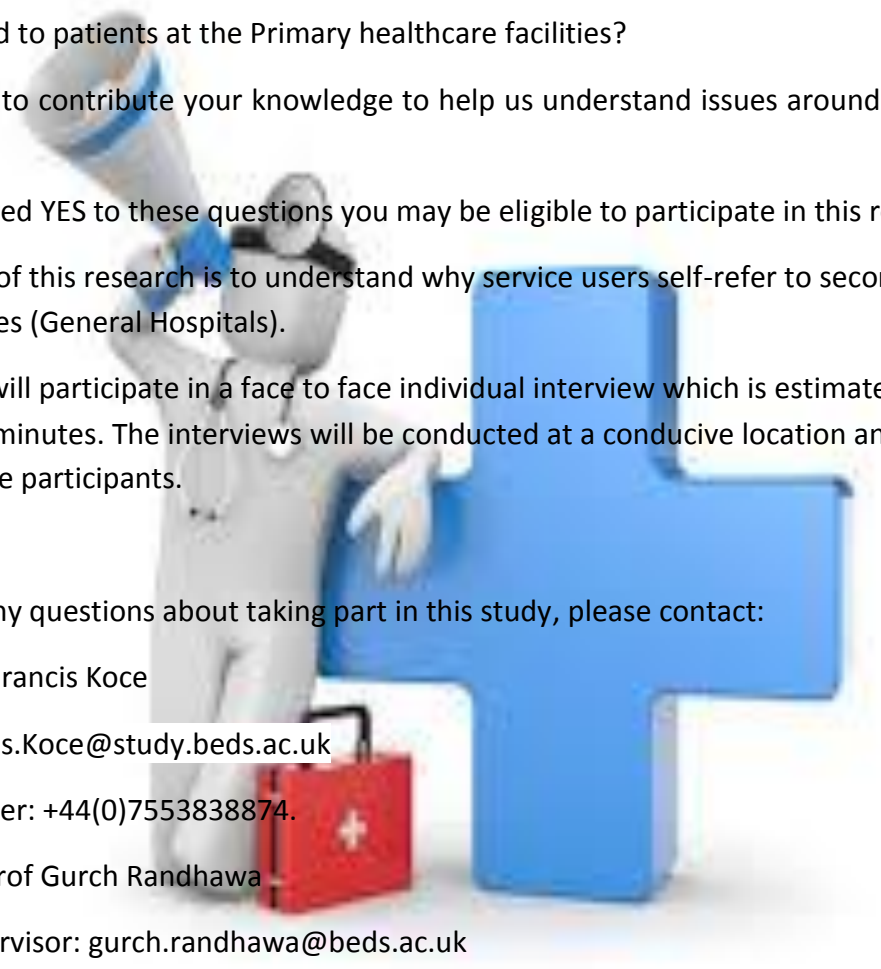
Do you attend to patients at the Primary healthcare facilities?

Do you want to contribute your knowledge to help us understand issues around healthcare self-referral?

If you answered YES to these questions you may be eligible to participate in this research.

The purpose of this research is to understand why service users self-refer to secondary health facilities (General Hospitals).

Participants will participate in a face to face individual interview which is estimated to last about 20-40 minutes. The interviews will be conducted at a conducive location and time suitable to the participants.



If you have any questions about taking part in this study, please contact:

Researcher: Francis Koce

E-mail: Francis.Koce@study.beds.ac.uk

Mobile number: +44(0)7553838874.

Supervisor: Prof Gurch Randhawa

E-mail of supervisor: gurch.randhawa@beds.ac.uk

Phone number of supervisor: +44 (0)1582 743797

Appendix 8A: Interview Schedule- Service users

Understanding healthcare self-referral in Niger state (Nigeria): the service users and healthcare provider's perspective

Introduction

- Thanking the participants for agreeing to participate in the research
- Introduce self and the PhD research: I am a PhD student at the University of Bedfordshire, UK. This research aims to explore the views of the service users and healthcare providers in Niger state to understand the reasons why patients bypass the primary healthcare facilities to the secondary healthcare facilities.
- A selected number of service users and healthcare providers will be interviewed to help gather the needed information regarding this problem.
- Brief outline of the interview: few personal information about you will be asked (such as age, level of education). We will then talk about how you understand the healthcare delivery in Nigeria. Your personal views on what serves as facilitators and barriers in bypassing the primary healthcare facilities to the secondary level will also be inquired.
- Inform the participants about the anonymity and confidentiality of their data. The likely duration (approximately 20-40 minutes) of the interview also made known to the participants and also the tape recording of the interview.
- Participants made to understand that the information from the research will be written up for my PhD thesis and is primarily for academic purpose. We will share the key findings with the federal and state ministry of health to help inform any potential plans for better service delivery.
- Confirmed from the participants if they have any questions about the study or interview before we commenced.
- Informed consent taken from participants by signing the informed consent form.
- Questions about participant's socio-demographics such as age, gender, occupation, educational level and marital status.

Healthcare delivery in Nigeria

- From your understanding, can you tell me about the functions of the government owned primary healthcare facilities (small clinics)?

- Can you also tell me about the functions of the secondary healthcare facilities (general hospitals)?
- Which level of health facility (primary, secondary or tertiary) is supposed to be your first point of contact when you have any health problem? (Why do you think the facility should be your first point of contact?)

The primary and secondary healthcare services/ facilities

- Have you attended the PHC facility (small government clinic) in the past for any reason?
  -If no, is there any particular reason that made you avoid using them?
  -If yes, what was your experience using the facility/ services?
- In addition, for patients who have used the PHC facilities in the past; is there any reason that have prevented you from going back to the PHC facility for medical care?
- How did you know about the secondary healthcare facility you attended?
- What do you think about the services in the secondary healthcare facility?
- Why did you come directly to the secondary health facility (general hospital) and not to the primary healthcare facility?
- Can you tell me more about additional things that you think might make patients to come directly to the secondary healthcare facility (general hospital)? (Probing for the roles of opening hours, waiting time, transport, fees, healthcare providers, service provided if not mentioned)
- From your point of view as a service user what are the likely things that will encourage you and other service users to use the PHC facilities?

Health condition

- What medical problem/condition brought you to the secondary healthcare facility (general hospital)?
- What was your thought about the problem/ what did you think was going on? (Probing for the perception of the seriousness of their condition)
- Did you think this problem would not be taken care of at the primary healthcare facilities? Why?

Conclusion

- Any additional information participants will like to add.
- Thank the participant for their time and reassure them their information will be treated with confidentiality.

Appendix 8B: Interview Schedule- Healthcare providers

Understanding healthcare self-referral in Niger state (Nigeria): the service users and healthcare provider's perspective

Introduction

- Thanking the participants for agreeing to participate in the research
- Introduce self and the PhD research: I am a PhD student at the University of Bedfordshire, UK. This research aims to explore the views of the service users and healthcare providers in Niger state to understand the reasons why patients bypass the primary healthcare facilities to the secondary healthcare facilities.
- A selected number of service users and healthcare providers will be interviewed to help gather the needed information regarding this problem.
- Brief outline of the interview: few personal information about you will be asked (such as age, level of education). We will then talk about how you understand the healthcare delivery of Nigeria. Your personal views on what serves as facilitators and barriers in bypassing the primary healthcare facilities to the secondary level will also be inquired.
- Inform the participants about the anonymity and confidentiality of their data. The likely duration (approximately 20-40 minutes) of the interview also made known to the participants and also the tape recording of the interview.
- Participants made to understand that the information from the research will be written up for my PhD thesis and is primarily for academic purpose. We will share the key findings with the federal and state ministry of health to help inform any potential plans for better service delivery.
- Confirmed from the participants if they have any questions about the study or interview before we commenced.
- Informed consent taken from participants by signing the informed consent form.
- Questions about participant's socio-demographics such as age, gender, occupation, marital status and duration of practice.

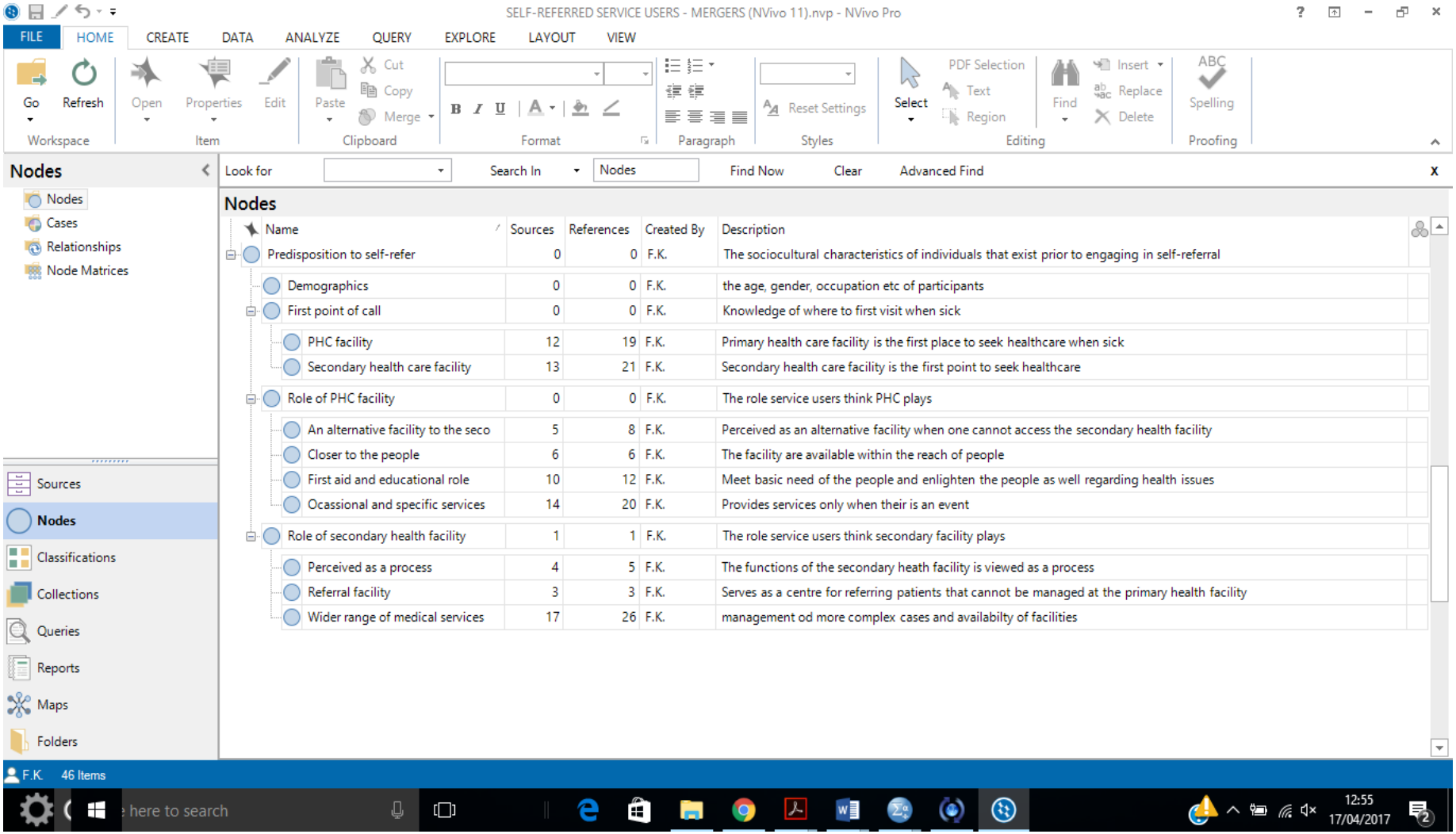
- How will you describe the functions of the different levels of Nigeria healthcare system? (The primary, secondary and tertiary levels)
- Which services are provided by your facility?

- What are your views about patients presenting directly to secondary health facilities without being referred?
- Can you tell me about the medical conditions frequently encountered in your facility?
- What are the processes involved when referring a patient to another facility (higher or lower)
- What also happens when receiving a referral from another facility?
- What guidelines do you have in place in your facility on how your referrals should operate or are carried out? Are you aware of any national policy on how referral should be conducted? If yes, what does it outline? If no, what is your opinion on having one in place?
- From your perspective, can you tell me about some particular factors that may be responsible for patients/ service-users self-referring directly to the secondary health facilities? Probing for the roles of opening hours, waiting time, transport, fees, healthcare providers if not mentioned.
- How can service users be encouraged to use the PHC facilities?
- How can the use of the secondary healthcare facilities be better regulated by ensuring the bypass of the primary healthcare facilities is at a minimum?

Conclusion

- Any additional information participants will like to add.
- Thank the participant for their time and reassure them their information will be treated with confidentiality.

Appendix 9: Example of themes/node structure in NVivo 11



Name	Sources	References	Created By	Description
Predisposition to self-refer	0	0	F.K.	The sociocultural characteristics of individuals that exist prior to engaging in self-referral
Demographics	0	0	F.K.	the age, gender, occupation etc of participants
First point of call	0	0	F.K.	Knowledge of where to first visit when sick
PHC facility	12	19	F.K.	Primary health care facility is the first place to seek healthcare when sick
Secondary health care facility	13	21	F.K.	Secondary health care facility is the first point to seek healthcare
Role of PHC facility	0	0	F.K.	The role service users think PHC plays
An alternative facility to the seco	5	8	F.K.	Perceived as an alternative facility when one cannot access the secondary health facility
Closer to the people	6	6	F.K.	The facility are available within the reach of people
First aid and educational role	10	12	F.K.	Meet basic need of the people and enlighten the people as well regarding health issues
Ocassional and specific services	14	20	F.K.	Provides services only when their is an event
Role of secondary health facility	1	1	F.K.	The role service users think secondary facility plays
Perceived as a process	4	5	F.K.	The functions of the secondary heath facility is viewed as a process
Referral facility	3	3	F.K.	Serves as a centre for referring patients that cannot be managed at the primary health facility
Wider range of medical services	17	26	F.K.	management od more complex cases and availabilty of facilities

Appendix 10: Example of generated themes/nodes for the service users

Name	Sources	References	Created By	Description
Enablers to self-refer	0	0	F.K.	The logistics and motivating factors of seeking care
Access to the healthcare facility	0	0	F.K.	This are factors spoken of by service users such as the physical accessibility, financial and organisational issues that facilitates patients to self-refer
Distance	8	11	F.K.	Distance to secondary health facility
Opening and closing hours	10	13	F.K.	Opening and closing times of the different facilities may affect service users to self-refer
Service fees at secondary facility	18	25	F.K.	Amount paid for services received at secondary healthcare facility
Socio-economic status	4	10	F.K.	Going to a higher level of facility can be viewed as utilizing health facilities based on ones capabilities
Waiting time at secondary facility	10	20	F.K.	Time taken to be able to see a healthcare provider
Advice	23	47	F.K.	This has to do with the service users knowing about the facilities or being influenced by family or relatives to self-refer
Educate or enlighten service users to use PHC	3	6	F.K.	Enlighten services users on the need to use the PHC facilities prior to referral to the secondary health facilities

facility				
Experiences and expectations of patients	0	0	F.K.	This had to do with service users drawing upon what they experienced in the different facilities and what they look forward to in a facility that prompt them to self-refer
Negative attitude of staff at PHC	9	16	F.K.	Attitude of staff at PHC towards the service users
Time wasting going to PHC facility	6	10	F.K.	Considered time wasting going to PHC facility before being referred to the secondary facility
Trust and supervision	12	17	F.K.	What the service users aim to achieve or get at the PHC
Policy on use of PHC facility prior to secondary health facility	15	23	F.K.	Setting a rule by the government for service users to utilise the primary healthcare before being referred to the secondary facility
Role of equipment or facilities	0	0	F.K.	How the service users spoke about the availability or non-availability of facilities that prompted them to self-refer
Absence of equipment or facilities at the PHC facilities	16	26	F.K.	The materials available to carry out their health practice

Availability of basic equipment at the secondary healthcare facilities	21	50	F.K.	Materials needed in the PHC to function effectively
Lack of investigation prior treatment at PHC	10	14	F.K.	Lack of having investigation done prior to instituting management
Role of healthcare providers	0	0	F.K.	How the service users have spoken about the healthcare providers to impact on them self-referring
Access of trained and qualified staff	16	29	F.K.	Healthcare providers in PHC should be readily available and have the knowledge needed to render healthcare services
Lack of staff and the level of knowledge of the staff at PHC facility	16	46	F.K.	The type of staff available and the level of staffing of a facility and as well the knowledge of the staff affects patients bypassing the PHC facility
Presence of doctors at secondary facility	14	20	F.K.	Presence of doctors at secondary facility
Need to self-refer	0	0	F.K.	This are the symptoms and perception of the severity of the condition that prompts patients self-referral

Severity	0	0	F.K.	Perception of severity of illness to warrant self-referral
Mild	8	8	F.K.	not much of a concern
Severe	16	18	F.K.	Feels the problem is a serious one
Symptoms	23	24	F.K.	The problem service users presented to the secondary health facility with
Predisposition to self-refer	0	0	F.K.	The sociocultural characteristics of individuals that exist prior to engaging in self-referral
Demographics	0	0	F.K.	the age, gender, occupation etc of participants
First point of call	0	0	F.K.	Knowledge of where to first visit when sick
PHC facility	12	19	F.K.	Primary health care facility is the first place to seek healthcare when sick
Secondary health care facility	13	21	F.K.	Secondary health care facility is the first point to seek healthcare
Role of PHC facility	0	0	F.K.	The role service users think PHC plays
An alternative facility to the secondary facility	5	8	F.K.	Perceived as an alternative facility when one cannot access the secondary health facility
Closer to the people	6	6	F.K.	The facility are available within the reach of people
First aid and educational role	10	12	F.K.	Meet basic need of the people and enlighten the people as well regarding health issues
Occasional and specific services	14	20	F.K.	Provides services only when there is an event

Role of secondary health facility	1	1	F.K.	The role service users think secondary facility plays
Perceived as a process	4	5	F.K.	The functions of the secondary heath facility is viewed as a process
Referral facility	3	3	F.K.	Serves as a centre for referring patients that cannot be managed at the primary health facility
Wider range of medical services	17	26	F.K.	management of more complex cases and availability of facilities

Appendix 11A: Charting for predisposition to self-refer themes (service users)

Identification no.	Role of PHC facility	Role of secondary healthcare facility	First healthcare facility to visit
SRSU1	P1, L11-15; P4, L210-218	P1, L24-42	P2, L65-68
SRSU2	P1, L10-12; P4, L159-162		P2, L51-60
SRSU3	P1, L34-37; P6, L288-291	P1-2, L47-49, L51-52	P2, L76-77, L82-86
SRSU4	P1, L29-32; P2, L84-86; P6, L277-283		P2, L66-72
SRSU5	P1, L9-16; P2-3, L95-104		P2, L90-95
SRSU6	P1, L7-8; P2, L71-76	P1, L23-40	P1, L44-46
SRSU7	P1, L22-27	P1, L33-38	P1, L58-60
SRSU8	P1, L12-19	P1, L28-36	P1, L41-44
SRSU9			P3, L111-115
SRSU10	P1, L14-15	P1, L25-29	P.2, L55-63
SRSU11	P1, L11-16	P1, L20-24; P4, L158-161	P1, L43; P2, L49-56
SRSU12	P1, L33-34	P1, 39-44	P2, L70-77
SRSU13	P1, L9-15	P1, L20-25, L28-31	P.1-2, L41-48
SRSU14		P1-2, L39-53	P2, L58, L92-94
SRSU15	P1, L10-16	P1, L20-26	P2, L50-51
SRSU16	P1, L19-22	P1, 26-31, 36-37	P1-2, L47-48

SRSU17	P1, L14-21, L23-26, L28-32; P2,L74-77; P2-3, L95-101	P1, L44-46; P2, L92-95	P2, L63-65; P2-3, L94-101
SRSU18	P1, L15-21, L34-43	P2, L49-54	P2, L77-82
SRSU19	P1, L7-11; P5, L236-239	P1, L15-18, L23-25	P1, L30
SRSU20	P1, L31-34; P2, L63-70	P1, L12-14; P2, L74-76	P3, 107-112
SRSU21	P1, L10-14	P1, L36-41	P.2, L74-76
SRSU22	P1, L12-15, L19-24	P1, L40-43	P2, L50, L52-55
SRSU23	P1, L42-45; P3, L120-125	P2, L70-78, L87-96	P3, L101-102
SRSU24	P1, L6-12, L27-31	P1, L16-23	P1, L37-39

Key: P=Page, L=Line number/s

Appendix 11B: Charting for enablers to self-refer (service users)

Identification no.	Role of healthcare providers	Role of equipment's or facilities	Advice from friends, relatives and others	Policy
SRSU1	P2, L70-72; P5, L281-286; P6-7, L344-357	P2, L69-70; P4, L209-212; P6, L289-294, L297-299, L300-312	P3, L120-121	P5, L254-267
SRSU2	P4, L170-179; P5, L216-221	P1, L22-29; P3, L99-102; P5, L237-242	P3, L126-129	P7, L307-322
SRSU3	P1, L14-19; P4, L190-194; P9, L432-433, L436-447	P3, L134-136, L141-143; P8-9, L395-400		
SRSU4			P3, L102-106; P5, L227-232	P8, L359-363
SRSU5	P4, L189-190; P5, L209-210, L213-216; P7, L314-316, L321-324	P4, L192-196; P6, L25-260, L263-272; P9, L419-422	P10-11, L488-499; P12, L554-557	P11, L533-540
SRSU6	P2, L49-53; P4, 182-187; P7, L334-335	P2, L58-64; P4, L162-169; P5, L220-221	P8, L350, L355-358	P7, L326-331
SRSU7	P5, L229-235; P6, L250-258	P4, L164-171; P7, L307-315	P4, L176-178; P11-12, L541-551	
SRSU8	P4, L167-171	P2, L54-57; P7, L306-308	P3, L122-123	

SRSU9	P8, L358-361	P2, 91-96	P3, L132	
SRSU10	P2, L96-97; P4, L184-186; P6, L258-259	P1, L30-34; P6, L260-262	P3, L115-118	
SRSU11	P3, L139-144; P5, L229-231; P6, L264-268	P6, L259-260, L285-291	P3, L105-109; P6-7, L294-295, L297-298	P7, L307-319
SRSU12		P6, L285-294	P2-3, L97-99	
SRSU13	P2, L53-54, L61-66; P6, L270-272	P5, L230-231; L233-237; P6, L267-270; P8, L383-384	P3, L149-152	P8, L362-370
SRSU14	P2, L80-86	P2, L88-89	P4, L160-163, P4, L169	P6-7, L293-299
SRSU15	P2, L53-63; P4, L183-188	P3, L112-116; P4, L160-169; L174-178; P5, L203-210, L225-232	P3, L101-104	P7, L302-310
SRSU16			P2, L89-92	
SRSU17	P1, L44-46; P8, L384-385	P1-2, L46-51; P5-6, L244-249; P8, L386-387	P4, L191-196	P9, L399-405
SRSU18	P5-6, L246-255, L271-275; P12, L555-557	P2, L58-63; P8, L355-362; P12, L549-552	P9, L418-425, L431-438	
SRSU19	P1, L34, L42; P5, L233-235	P1, L20; P2, L50-52; P3, L132-135	P2, L75, L80	P5, L220, L222-223

SRSU20	P2, L92-95; P6, L293-295	P2, L87-91; P5, L200-221, L245-247	P4, L153-158	P7-8, L346-349
SRSU21	P2, L48-50; P4, L175-178	P7, L312-319, L345-347	P3, L139-143	
SRSU22	P1, L28-31; P2, L56-59; P5, L203	P5, L214-216	P2, L91-93	P5, L227-229
SRSU23	P1, L8-13	P1, L17-19, L22-29; P5, L240-241	P4, L189	
SRSU24	P1-2, L45-49; P4, L184	P3, L111-115; P4, L185-186	P2, L69	

Identification no.	Expectations of service users	Access to the healthcare facility
SRSU1	P2, L86-92; L101-102	P4, L204-209; P4-5, L226-243; P7, L388-392; P8, L431-443
SRSU2	P1, L14-17; P2, L58-62	P6, L266-269, L282-291
SRSU3	P1, L21-25; P7, 302-307	P9, L409-414
SRSU4	P5, L219-223; L238-243; P10, L453-455, L457-458	P4, L163-164, L167-168, L170-171; P6-7, L295-299; P8, L375, L377-383, L385-388
SRSU5		P6, L274-275, L277-280; P6-7, L295-302; P9, L409-412

SRSU6	P1, L18-20	P5, L246-247; P6, L249
SRSU7	P6, L276-282	P6-7, L258-263, L294-298
SRSU8	P4, L195	P6, L290-292
SRSU9		P2, L50-52, L54-56; P3, L111-115; P4, L196-197
SRSU10	P6, L267-270	P3, L143-146; P5, L212-219
SRSU11	P2, L78-81; L85-89	P2, L51-56; P4, L162-163, L165-166; P5, L199-202
SRSU12		P2, L70-77; P3, L104-106; P4-5, L195-201
SRSU13	P2-3, L96-98; P3, L144-146	P2, L50-52; P8, L354-356; P9, L432-434
SRSU14		P5, L210-211; P9, L401-406, L408, L413-414
SRSU15		P5, L239-241; P6, L274-277
SRSU16	P3, L130-134; P9, L431-445	P4, L156-159; P5, L231-235; P6, L265-270
SRSU17		P7, L308-315, L331, L333; P8, L360-363
SRSU18		P6, L283-288; P10, L467-474
SRSU19		P3-4, L145-148; P4, L195; P5, L199
SRSU20		P6-7, L297-303
SRSU21	P3, L121-124; L126-130	P6, L254-262, L267-271

SRSU22	P3, L120-122; P4, L185-194	P6, L256-260
SRSU23	P1, L13-17; P2, L61-65, L78-83	P6, L253-260; L264-265, L293-294
SRSU24		P3, L126-136, L141-145; P4, L152-153

Key: P=Page, L=Line number/s

Appendix 11C: Charting for need to self-refer (service users)

Identification no.	Symptom of medical condition	Severity of medical symptoms
SRSU1	P3, L138-139	P3, 155-156
SRSU2	P3, L109-111	P2, L95
SRSU3	P4, L174-178	P3, L130-131
SRSU4	P4, L191-194	P4, L191-194
SRSU5	P3, L144-146	P4, L168-174
SRSU6	P3, L131-135	P3, L131-141
SRSU7	P4, L196-197	P5, L223-228
SRSU8	P3, L148-149	P5, L206-207
SRSU9	P1, L15-16	
SRSU10	P2, L77	P4, L151-154
SRSU11	P3, L116-120	P3, L116-117
SRSU12	P3, L102-104	P3, L140-143
SRSU13	P5, L198	P5, L201-205
SRSU14	P4, L188-192	P4, L188-192
SRSU15	P3, L119	P3, L133-139
SRSU16	P3, L109-111	P3, L119-120
SRSU17	P5, 220-223	P5, L229-233

SRSU18	P6, 292-294	P7, L319-323
SRSU19	P3, L99-100	P2, L96-97
SRSU20	P4, L168-170	P4, L182-186
SRSU21	P4, L150-153	P4, 159-162
SRSU22	P3, L110	P3, L114-116
SRSU23	P4, L193-197	P5, L201
SRSU24	P2, L84-85; P3, L99-101	P2, L95-97

Key: P=Page, L=Line number/s

Appendix 12: Charting for identified themes from the healthcare providers

Identification no.	The role of healthcare providers	Expectations of service users	Advice from friends, relatives and others	Access to the healthcare facilities	The role of equipment's or facilities	Policy
Nurse1	P4-5, L216-217, L219-222, L227-231; P7, L388-394; P8, L418-424; P9, L469-472, L477-481	P8, L457-460	P6-7, L336-356	P5, L271-276	P5, L239-240, L244-246, L249, L251-262; P7, L350-353, L355-360	
Nurse2	P5, L278-281; P6, L291-297	P1, L21-27;	P1, L27-34; P4, L193-199; P5, L233-239; P7, L366-370	P6, L313-314		
Nurse3	P6, L291-314	P4, L194-204; P7, L309-327	P6-7, L337-349		P6, L315-322; P7, L338-344; P8, L349-354; P9, L38-413	

Nurse4	P9-10, L443-450; P10, L458-468	P9, L424-433, L439-443		P11, L519-535		
Nurse5	P6-7, L342-356	P6, L306-311	P6, L341-342	P6, L325-332		
Nurse6	P4, L192-194; P5, L269-281				P6, L310-312, L314-317	
*CHW1	P4, L195-197, L224-230			P5, L267-268, L270-272	P4, L191-192, L214-219; P5-6, L218-220, L223-231, L241-246	
CHW2	P4, L180-184; P5, L207-208, L220-221	P1, L12-19; P6, L321-326; P7, L393-397		P6, L269-278	P1, L20-22, L29-34; P4, L187-193	
CHW3		P5, L283-287; P6, L309-321, L330-338		P7, L397-400		
CHW4	P5, L270-272; P10, L538-547			P5, L275-279; P6, L321-324; P8, L414-426, L438-448	P8, L442-458; P9, L465-467; P10, L538-542, L562-564	

CHW5	P5, L258-266; P8, L435-441; P9, L469-487		P9, L462-464	P5, L270-278; P6, L298-306; P7, L352-361; P7-8, L395-425	P5, L239-249	
CHW6	P4, L176-184; P8, L410-418	P7, L353-354	P4, L186-195; P6, L314-318, L332-343	P5, L260-263; P5-6, L273-291; P7, L349-352, L355-356	P8-9, L384-399	
Doctor1	P6, L247-249, L283-285; P6-7, L289-308; P8, L367-379; P9, 403-410	P6, L257-263		P6, L263-265	P6, L249-251, L331-333	
Doctor2	P5, L243-249, L279-281; P5-6, L285-291, L304-314, L316-323	P5, L239-241L259-265	P5, L273-279; P8-9, L460-464	P6, L340-342; P7, L350-354; P9, L474-481	P6, L301-311; P8, L415-423	P8, L434-439
Doctor3	P5, L266-270, L276-286; P6, L328-338; P7, L354-366	P5, L249-254	P5, L257-259, L264-267; P6, L326-328	P8-9, L449-460	P6, L287-289; P9, L468-474, L489-495	

Doctor4	P8, L422-431; P9-10, L518-532, L544-550	P8, L414-417; P8-9, L457-462	P9, L473-474	P8, L451-456	P5, L496-500	P5, L232-237, L267-268
Doctor5	P4, L172-178; P5, L237-239, L249-255, L270-280		P3-4, L171-174; P5, L241-243	P4, L178-186	P4, L193-203; P7, L383-395	
Doctor6	P4, L220-222; P5, 238-245; P6, L294-300; P7, L395-401	P4, L209-214	P7, L371-378	P5, L267-274; P6, L318-326	P4, L223-225; P7, L350-353, L355-360	P7, L352-360

Key: P=Page, L=Line number/s

Appendix 13: Healthcare self-referral questionnaire (Initial pool of items)

How to complete this questionnaire:

This questionnaire is made up of three main sections (A, B and C). In these sections a series of statements are provided that require your opinion on how much you agree or disagree with each statement. The interviewer will read out the statements and you have the choice of choosing one of the options from "strongly agree", "agree", "not sure", "disagree" or "strongly disagree". However, in section A, you will be asked some information about yourself such as your ethnicity/tribe, level of education and gender. The confidentiality of the information will be maintained, and no name will be provided on the questionnaire.

A. Predisposition to self-refer

1) Socio-demographics

1) **Age**…….
2) **Gender**: Male/ Female
3) **Ethnicity / tribe**: …….
4) **Level of educational qualification:** No formal education, primary school, secondary school, tertiary level,
5) **Occupation** ……

6) **Religion:** Christian, Muslim, Traditional religion, others

7) **Marital status**: Single, Married, Cohabiting, Separated, Divorced, Widowed

Statements	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1. Understanding of the role of PHC					
8) -PHC facilities are only for minor cases					
9) -PHC facilities are meant for the poor people					
10) -PHC facilities should be close to the people*					
11) -The first health facility that should be attended when sick is the PHC facility*					
12) -PHC facilities are only meant for immunization of children					
13) -PHC facilities are only meant for pregnant women					
14) -PHC facilities are not important in providing healthcare					
15) -PHC facilities should only be used when there are no general hospital around					

16) -PHC facilities should only be used when the general hospitals are overcrowded					

2. Understanding of the role of SHC	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
17) -General hospitals have better equipment					
18) -General hospital have doctors					
19) -General hospital attend to more serious medical conditions than the PHC facilities					
20) - The first health facility that should be attended when sick should be the general hospital					
21) -General hospital serves the same purpose as the PHC facilities					
22) -The PHC facility should be attended first before being referred to the general hospital					

B) Enablers to self-refer

Statements	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1. Role of healthcare providers					
23) -Staff in PHC facilities do not have much medical knowledge					
24) -You may be given a wrong diagnosis by staff in the PHC facilities					
25) -Staff in general hospital are mainly doctors					
26) -You prefer to be seen by doctors					
27) - You prefer to be seen by a nurse					
28) - You prefer to be seen by a community health worker					
29) - You will attend PHC facilities only if they have doctors*					

2. Role of equipment or facilities	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
30) -PHC facilities lack basic equipment					
31) - You can’t get your test done in PHC facilities					
32) -PHC buildings are not good looking/ old					
33) -PHC facilities are mostly dirty					
34) -General hospital have the needed equipment					
35) - You prefer to have a test done before getting medication					

36) - You are able to get your test done in general hospital					

3. Advice from friends, relatives and others	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
37) -You know of the services provided in the general hospital that's why you came down to the general hospital					
38) - You were advised to come to the general hospital by your friend/ relatives					
39) -It was your personal decision to come to the general hospital					
40) - You know some of the staff in the general hospital					
41) - You don't know of the PHC facilities around where you live					
42) - You need more information about the services of PHC facilities					
43) - You don't think the PHC facility is a place you should go to					

4. Expectations of service users	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
44) - You don't have confidence in the PHC facilities					
45) -Going to PHC facility is a waste of time					
46) - You won't get the care you need at the PHC facilities					

47) -PHC staff don't have the right attitude towards their patients					
48) -You have confidence in the general hospital					
49) -You get better attention and care at the general hospital					
50) -There is need for better supervision of the PHC facilities to be able to provide the needed services*					

5. Access to the healthcare facility	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
51) -It is cheaper to go to the PHC facility*					
52) -It is more expensive coming to the general hospital*					
53) -You can afford the cost at the general hospital					
54) -General hospital is within your standard (social class)					
55) -PHC facility is below your social class					
56) -You are less concerned about the cost of care at the general hospital					
57) –You are more concerned about your health					
58) -The general hospital is closer to where you live compared to the PHC facility					
59) -The PHC facility is closer to where you live compared to the general hospital*					

60) -PHC facilities have irregular opening hours					
61) -General hospital is opened 24 hours in a day					
62) -The waiting time to see a doctor at the general hospital is longer*					
63) -It is quicker to see a staff at the PHC facility*					
64) – You will rather wait to see a doctor no matter how long it takes than go to the PHC facility					

6. Policy	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
65) -A strict rule should be in place for patients to use PHC facility first before coming to general hospital*					
66) - You will support any rule encouraging the use of PHC facilities*					
67) -PHC facilities should operate at an appreciable standard before enforcing any rule to use the PHC*					
68) - You will go to the PHC facility if a fine was placed on those coming directly to the general hospital*					

69) - You rather pay the fine than go to the PHC facility					

C) Need to self-refer (Perceived need)

		72)- Severity*				
70)- Symptom	**71)- Duration**	**Very Mild**	**Mild**	**Moderate**	**Severe**	**Very Severe**
1.						
2.						
3.						
4.						
5.						

University of Bedfordshire

Appendix 14A: Expert panel information sheet

STUDY TITLE: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDER PERSPECTIVE

Researcher

The primary researcher for this study is Francis Koce who is carrying out this research as part of his Master of Philosophy (MPhil)/Doctorate of Philosophy (PhD) in Health Research at the University of Bedfordshire, UK.

Research description

The healthcare referral system plays an integral role in healthcare delivery. However, the Nigerian healthcare referral system continues to be a challenging area for healthcare delivery, with 60-90% of patients presenting to the referral facilities reported to be self-referred (presenting to referral facilities without any form of referral) service-users. The burden created by these actions is that the normal pyramidal structure of the referral system is distorted. The primary healthcare facilities in Nigeria are underutilised and unrecognised, wasting the skills and resources of the healthcare providers serving those facilities. The referral facilities in turn have become overloaded with patients beyond what they are able to cater for and healthcare providers are over worked with minor ailment that could have been taken care of at the primary healthcare facilities, as a result, the sick patients that actually need the referral facilities are unlikely to get the desired attention they need. It is also noted that the normal pyramidal structure of the healthcare system has an economic benefit as well. However, most studies available in this field have been majorly from developed settings such as United Kingdom, Netherlands, United states etc., but notably healthcare delivery in these developed settings differ markedly from a developing setting like Nigeria.

Research objectives

The objectives for this research are:

1) To identify the factors that influence service users' self-referral to the secondary healthcare facilities by exploring the perceptions and experiences of the service users and healthcare providers.

2) To examine the relationships between the identified factors that influences the decision to self-refer to the secondary healthcare facilities among the self-referred service users.

Methods and what has been done so far

This research employs a two-phase exploratory sequential mixed method. The phase 1 of this research has been concluded; it employed a qualitative approach to interview self-referred service users and healthcare providers to answer the first objective. This leads to the phase 2 of this research which is the quantitative aspect and involves the development of a questionnaire based on the findings of phase 1 and the literatures. The process also involves the review of the developed instrument by panel of experts which you have been kindly requested to be part of, subsequently a pilot test among self-referred service users will also be carried out. The refined instrument will then be used on a larger sample of self-referred service users to answer the third objective of this research.

Questionnaire description

The questionnaire is intended for a face to face interviewer administered procedure with service users who self-refer. Attached with this information sheet is the questionnaire for the self-referred service users titled "HEALTHCARE SELF-REFERRAL QUESTIONNAIRE". The questions were developed from the findings of the qualitative interview and literature as earlier stated, thus this is contextualised to the Nigerian healthcare system.

The Andersen's healthcare utilization model was used as a conceptual framework to guide the research. Thus, the questionnaire is structured in three sections based on the predisposing, enabling and need components of the Andersen's model.

The predisposing components for this study include the socio-demographics, this also encompass the service users understanding of the role of the primary healthcare facilities and secondary healthcare facilities where the responses will be measured using a five-point Likert scale for the participants to identify their level of agreement with each statement, where 1=strongly agree, 2=agree, 3=not sure, 4=disagree and 5=strongly disagree.

The enabling components are mainly the logistic aspects of obtaining care which for this study included "role of healthcare providers", "role of equipment/ facilities", "advice from friends, relatives and others", "expectations of service users", "policy" and "access to the healthcare facility". The responses will also be measured using a five-point Likert scale for the participants to identify their

level of agreement with each statement, where 1=strongly agree, 2=agree, 3=not sure, 4=disagree and 5=strongly disagree.

While the need component is centred on the service users perceived symptom/s and stating the duration of the symptom/s. The perception of the severity of their symptom/s is measured using a five-point Likert scale where 1=Very mild, 2=mild, 3=moderate, 4=severe and 5=very severe.

What to do as a member of the expert panel

Also attached with this information sheet is a duplication of the questions generated for the questionnaire titled "EXPERT PANEL QUESTIONNAIRE", this document is for you as an expert to provide your opinion on the items. Please choose one option from 1-not relevant, 2-somewhat relevant, 3-quite relevant and 4-highly relevant by ticking the box against each statement to indicate how relevant or representative you feel the items are in examining the topic of healthcare self-referral. You are also free to provide additional information on the item such as the readability and comprehension of the items in the 'additional comment' box. This information will aid in reflecting on, revising, deleting, or substitution of items as the case may be. On completion of this document, please send it back to the researcher via: francis.koce@study.beds.ac.uk. You will be acknowledged in the write up of the thesis on completion of this research for your contribution in reviewing the questionnaire.

Researcher details:

If you have any queries or need additional information, please contact:
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University of Bedfordshire

Appendix 14B: Expert panel questionnaire

How to provide opinion on this questionnaire:

Based on your review of the items of the questionnaire and information sent to you, this document is for you as an expert to provide your opinion on the items. Please choose one option from 1-not relevant, 2-somewhat relevant, 3-quite relevant and 4-highly relevant by ticking the box against each statement to indicate how relevant or representative you feel the items are in examining the topic of healthcare self-referral. You are also free to provide additional information on the item such as the readability and comprehension of the items in the 'additional comment' box. This information will aid in reflecting on, revising, deleting, or substitution of items as the case may be.

Key: PHC- Primary Healthcare, SHC-Secondary Healthcare

A) Predisposition to self-refer

Statements	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
1. Socio-demographics					
1) Age					

2) Gender- Male/ Female					
3) Ethnicity/ tribe-					
4) Level of educational qualification- primary school, secondary school, tertiary level, No formal education					
5) Occupation					
6) Religion- Christian, Muslim, Traditional religion, others					
7) Marital status- Single, Married, Divorced, Widowed, Widower					

2. Understanding of the role of PHC	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
8) -PHC facilities are only for minor cases					
9) -PHC facilities is meant for the poor people					

10) -PHC facilities should be close to the people*					
11) -The first healthcare facility that should be attended when sick is the PHC facility*					
12) -PHC facilities is only meant for immunization of children					
13) -PHC facilities is only meant for pregnant women					
14) -PHC facilities is not important in providing healthcare					
15) -PHC facilities should only be used when there is no general hospital around					
16) -PHC facilities should only be used when the general hospital is overcrowded					

3. Understanding of the role of SHC	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment

17) -General hospitals have better equipment					
18) -General hospital have doctors					
19) -General hospital attend to more serious medical conditions than the PHC facilities					
20) - The first healthcare facility that should be attended when sick is the general hospital					
21) -General hospital serves the same function as the PHC facilities					
22) -The PHC facility should be attended first before being referred to the general hospital					

B) Enablers to self-refer

Statements	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
4. Role of healthcare providers					
23) -Staff in PHC facilities do not have enough					

medical knowledge					
24) -I may be given a wrong diagnosis by staff in the PHC facilities					
25) -Staff in general hospital are mainly doctors					
26) -I prefer to be seen by doctors					
27) -I prefer to be seen by a nurse					
28) -I prefer to be seen by a community health worker					
29) -I will attend PHC facilities only if they have doctors*					

5. Role of equipment or facilities	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
30) -PHC facilities lack basic equipment					
31) -I can't get my test done in PHC facilities					
32) -PHC buildings are not good looking/ old					
33) -PHC facilities are mostly dirty					
34) -General hospital have the needed equipment					

35) -I prefer to have a test done before getting medication					
36) -I am able to get my test done in general hospital					

6. Advice from friends, relatives and others	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
37) -I know of the services provided in general hospital that's why I came					
38) -I was advised to come to the general hospital by my friend/ relatives					
39) -It was my personal decision to come to the general hospital					
40) -I know some of the staff in the general hospital					
41) -I don't know of the PHC facilities around where I live					
42) -I need more information about the services of PHC facilities					
43) - I don't think the PHC facility is a place I					

should go to					

7. Expectations of service users	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
44) -I don't have confidence in the PHC facilities					
45) -Going to PHC facility is a waste of time					
46) -I won't get the care I need at the PHC facilities					
47) -PHC staff don't have the right attitude towards their patients					
48) -I have confidence in the general hospital					
49) -I get better attention and care at the general hospital					
50) -There is need for better supervision of the PHC facilities to be able to provide the needed services*					

8. Access to the healthcare facility	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment

51) -It is cheaper to go to the PHC facility*					
52) -It is more expensive coming to the general hospital*					
53) -I can afford the cost at the general hospital					
54) -General hospital is within my standard (social class)					
55) -PHC facility is below my social class					
56) -I am less concern about the cost of care at the general hospital					
57) -I am more concern about my health					
58) -The general hospital is closer to where I live compared to the PHC facility					
59) -The PHC facility is closer to where I live compared to the general hospital*					
60) -PHC facilities have irregular opening hours					
61) -General hospital is opened 24 hours in a day					
62) -The waiting time to see a doctor at the general hospital is longer*					
63) -It is quicker to see a staff at the PHC facility*					
64) -I rather wait to see a doctor no matter how					

long it takes than going to the PHC facility					

9. Policy	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
65) -A strict rule should be in place for patients to use PHC facility first before coming to general hospital*					
66) -I will support any rule encouraging the use of PHC facilities*					
67) -I will go to the PHC facility if a fine is placed on those coming directly to the general hospital*					
68) -I rather pay the fine than go to the PHC facility					
69) -PHC facilities should operate at an appreciable standard before enforcing any rule to use the PHC*					

C) Need to self-refer (Perceived need)

Statements	1-Not relevant	2-Somewhat relevant	3-Quite relevant	4-Highly relevant	Additional comment
70)-Self-reported symptoms					
71)-Duration of symptoms					
72)-Severity *					

Appendix 14C: Summary of the items rating by the expert panel

ITEM NO.	EXPERT 1	EXPERT 2	EXPERT 3	EXPERT 4	I-CVI
A) PREDISPOSITION TO SELF-REFER					
Socio-demographics					
1	✓	✓	✓	✓	1.00
2	✓	✓	✓	✓	1.00
3	✓	✓	✓	✓	1.00
4	✓	✓	✓	✓	1.00
5	✓	✓	✓	✓	1.00
6	X	✓	✓	✓	0.75
7	✓	✓	✓	✓	1.00
Understanding of the role of PHC					
8	✓	✓	✓	✓	1.00
9	✓	✓	✓	x	0.75
10	✓	✓	✓	✓	1.00
11	✓	✓	✓	✓	1.00
12	✓	x	✓	✓	0.75
13	✓	x	X	✓	0.50
14	✓	✓	x	✓	0.75
15	✓	✓	x	x	0.50

16	✓	✓	✓	X	0.75
Understanding of the role of SHC					
17	✓	✓	X	✓	0.75
18	X	x	X	✓	0.25
19	✓	✓	x	✓	0.75
20	✓	✓	✓	✓	1.00
21	✓	✓	✓	x	0.75
22	✓	✓	✓	✓	1.00
B) ENABLERS TO SELF-REFER					
Role of healthcare providers					
23	✓	✓	✓	✓	1.00
24	✓	x	✓	✓	0.75
25	✓	x	✓	✓	0.75
26	X	✓	✓	✓	0.75
27	X	✓	x	X	0.25
28	X	x	X	x	0.00
29	✓	x	✓	✓	0.75
Role of equipment or facilities					
30	✓	x	✓	✓	0.75
31	✓	✓	✓	✓	1.00

32	X	x	✓	X	0.25
33	X	x	✓	x	0.25
34	✓	X	X	✓	0.50
35	✓	x	✓	✓	0.75
36	✓	✓	x	✓	0.75
Advice from friends, relatives and others					
37	✓	✓	✓	✓	1.00
38	✓	✓	✓	✓	1.00
39	✓	✓	✓	✓	1.00
40	✓	✓	✓	✓	1.00
41	✓	✓	✓	✓	1.00
42	✓	✓	✓	✓	1.00
43	✓	✓	✓	✓	1.00
Expectations of service users					
44	✓	✓	✓	x	0.75
45	✓	✓	X	✓	0.75
46	✓	✓	x	✓	0.75
47	✓	x	✓	x	0.50
48	✓	✓	X	✓	0.75
49	✓	✓	x	✓	0.75

50	✓	x	✓	✓	0.75
Access to the healthcare facility					
51	✓	✓	✓	✓	1.00
52	✓	✓	✓	✓	1.00
53	✓	✓	✓	✓	1.00
54	✓	✓	✓	X	0.75
55	✓	✓	✓	x	0.75
56	✓	✓	✓	✓	1.00
57	✓	x	X	✓	0.50
58	✓	✓	✓	✓	1.00
59	✓	✓	✓	✓	1.00
60	✓	✓	✓	x	0.75
61	✓	✓	x	✓	0.75
62	✓	✓	✓	✓	1.00
63	✓	✓	✓	✓	1.00
64	✓	✓	✓	✓	1.00
Policy					
65	✓	✓	x	✓	0.75
66	✓	✓	✓	✓	1.00
67	✓	✓	✓	✓	1.00

68	✓	✓	✓	✓	1.00
69	✓	✓	✓	✓	1.00
C) NEEDS TO SELF-REFER					
70	✓	✓	✓	✓	1.00
71	✓	✓	✓	✓	1.00
72	✓	✓	✓	✓	1.00

Note: The item numbers correspond to the number on the lists of items as presented in the initial pool of questions generated and the rating template provided for the expert panel (see appendix 13 and 14B respectively).

ID Number…….

Appendix 15: Healthcare self-referral questionnaire (Interviewer administered) - Used for the pilot study and revised afterwards

How to complete this questionnaire:

This questionnaire is made up of three main sections (A, B and C). In these sections a series of statements are provided that require your opinion on how much you agree or disagree with each statement. The interviewer will read out these statements and you have the choice of choosing one of the options from “strongly agree”, “agree”, “not sure”, “disagree” or “strongly disagree”. However, in section A, you will be asked some information about yourself such as your age, level of education and gender. The confidentiality of the information will be maintained, and no name will be provided on the questionnaire.

A. Predisposition to self-refer

1. Socio-demographics

1) **Age**…….
2) **Gender**: Male/ Female
3) **Level of educational qualification:** No formal education, primary school, secondary school, tertiary level,
4) **Occupation** ……

5) **Marital status**: Single, Married, Cohabiting, Separated, Divorced, Widowed

Statements	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
2. Understanding of the role of PHC					
6) -PHC facilities are only for minor cases					
7) -PHC facilities are meant for the poor people					
8) -PHC facilities should be close to the people*					
9) -PHC facilities are only meant for immunization of children					
10) -PHC facilities are only meant for pregnant women					
11) -PHC facilities are not important in providing healthcare					
12) -PHC facilities should only be used when there are no general hospital around					
13) -PHC facilities should only be used when the general hospitals are overcrowded					

3. Understanding of the role of SHC	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
14) -General hospitals have better equipment					
15) -General hospital attend to more serious medical conditions than the PHC facilities					
16) - The first health facility that should be attended when sick should be the general hospital					
17) -General hospital serves the same purpose as the PHC facilities					

B) Enablers to self-refer

Statements	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1. Role of healthcare providers					
18) -Staff in PHC facilities do not have much medical knowledge					
19) -You may be given a wrong diagnosis by staff in the PHC facilities					
20) - You are more likely to be seen by a doctor at the general hospital than at the PHC facility					

21) - You prefer to be seen by doctors compared to nurses and CHWs					
22) - You will attend PHC facilities only if they have doctors*					

2. Role of equipment or facilities	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
23) - PHC facilities lack basic equipment compared to the general hospital					
24) - You can't get your test done in PHC facilities					
25) -PHC buildings are not good looking/ old					
26) -PHC facilities are mostly dirty					
27) - You prefer to have a test done before getting medication					

3. Advice from friends, relatives and others	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
28) -You know of the services provided in the general hospital that's why you came down to the general hospital					
29) - You were advised to come to the general hospital by your friend/ relatives					
30) - You know some of the staff in the general hospital					

31) - You don't know of the PHC facilities around where you live					
32) - You need more information about the services of PHC facilities					
33) - You don't think the PHC facility is a place you should go to					

4. Expectations of service users	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
34) - You have more confidence in the general hospital than the PHC facilities					
35) -Going to PHC facility is a waste of time					
36) - Healthcare service is better at the general hospital					
37) -PHC staff don't have the right attitude towards their patients					
38) -There is need for better supervision of the PHC facilities to be able to provide the needed services*					

5. Access to the healthcare facility	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
39) - It is cheaper to go to the PHC facility for healthcare than coming to the general hospital*					
40) - You can afford the cost of healthcare services at the general hospital					

41) - General hospital is within your standard (social class) compared to the PHC facilities					
42) -You are less concerned about the cost of care at the general hospital					
43) – You are more concern about your health than the cost of care					
44) -The PHC facility is closer to where you live compared to the general hospital*					
45) -PHC facilities have irregular opening hours					
46) -General hospital is opened 24 hours in a day					
47) - The waiting time to see a doctor at the general hospital is longer compared to seeing a staff at PHC facility*					
48) – You will rather wait to see a doctor at the general hospital no matter how long it takes than go to the PHC facility					

6. Policy	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
49) -A strict rule should be in place for patients to use PHC facility first before coming to general hospital*					
50) - You will support any rule encouraging the use of PHC facilities*					

51) -PHC facilities should operate at an appreciable standard before enforcing any rule to use the PHC*						
52) - You will go to the PHC facility if a fine was placed on those coming directly to the general hospital*						
53) - You rather pay the fine than go to the PHC facility						

C) Need to self-refer (Perceived need)

		56)- Severity*				
54)- Symptom	**55)- Duration**	Very Mild	Mild	Moderate	Severe	Very Severe
1.						
2.						
3.						
4.						
5.						

Thank you for participating in this study!

University of Bedfordshire

Appendix 16: Participant information sheet (Service users- Objective 2)

STUDY TITLE: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDERS PERSPECTIVE

Researcher:

The primary researcher for this study is Francis Koce who is carrying out this research as part of his Master of Philosophy (MPhil)/Doctor of Philosophy (PhD) degree at the University of Bedfordshire, UK.

This is an invitation to take part in a research project. It is important to read through this information sheet to understand why this research is being carried out and what it will involve before deciding to participate. Please, if you need further information or clarification about this research, do not hesitate to contact the researcher, details are provided at the end of this information sheet.

What is the purpose of the study?

This study aims to gather information to understand why service users bypass the primary healthcare facilities directly to the secondary healthcare facilities.

What would taking part involve?

You have been approached because you are a self-referred service user to the public secondary healthcare facility (general hospital) in Niger state.

After notifying the researcher of your interest to participate in this research, your consent will be sought through signing a consent form and you will be asked a number of questions from a questionnaire with available options as answers to choose from. This is estimated to last about 10-20 minutes.

How will my confidentiality be maintained?

The information you provide will be treated in a confidential manner. You will remain anonymous during and after this research. The questionnaire will be labelled with a pseudonym. The completed

questionnaires will be kept separately and securely from the electronic copy that will be entered into the SPSS software which will be password protected with restricted access to only the principal researcher and the supervisory team. This document will be subsequently destroyed on completion of this research.

What are the risks of participating in this study?

There are no anticipated hazards or risk resulting from participating in this research.

What are the benefits of participating in this study?

The results of this study may benefit the population using these healthcare facilities and also the health professionals by identifying issues associated with the current referral practise. These can be used for making recommendations for the implementation of future policy on operating an effective healthcare referral system in Nigeria.

What are your rights to participate in this study?

Your participation in this study is strictly voluntary; you have the right to refuse to take part or withdraw at any time. If you chose to refuse to take part or to withdraw from the study, you will not receive any penalty or loss of any benefits to which you are entitled. Your name and any personal details will not be made available to third parties.

Who will answer your questions?

Principal researcher: Francis Koce
E-mail: Francis.Koce@study.beds.ac.uk
Phone number: +44(0)7553838874
+2348087891923

University of Bedfordshire

Appendix 17: Informed Consent Form (Objective 2)

NHREC Protocol Number NHREC/01/01/2007-26/11/2016

Approval dates from 22/12/2016 to 21/12/2017

STUDY TITLE: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDERS PERSPECTIVE

Please circle or tick as appropriate:

Have you received, read and understood a copy of the information letter?	Yes	No
Do you understand that your participation in this study is entirely voluntary?	Yes	No
Do you understand that you are free to refuse participation and have the right to withdraw at any time for any reason without any penalty or loss to any benefit you are entitled to and that all data collected from you at that time before analysis will be removed?	Yes	No
Do you understand that your name will not be displayed in any reports, presentations or publications and that you will be assigned a pseudonym for this purpose?	Yes	No
Do you confirm that you have had opportunity to ask questions and that your questions have been answered to your satisfaction?	Yes	No
Are you happy to be contacted to give further clarification to any of your data?	Yes	No

Name of participant _____

Signature/thumb print_____

Date_____

If you have any queries or need additional information, please contact:
Principal researcher: Francis Koce
E-mail: Francis.Koce@study.beds.ac.uk
Phone number: +44(0)7553838874.
+2348087891923

Thank you for your participation!

Please complete and return this form to the research staff.

Appendix 18: IHR Ethics approval letter (pilot for Objective 2)

University of Bedfordshire

Institute for Health Research

Putteridge Bury

Hitchin Road

Luton

Beds LU2 8LE

25 July 2016

Francis George Koce

Student number: 1316481

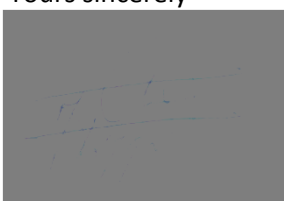
Dear Francis George Koce

Re: IHREC Application No: IHREC662
Project Title: Understanding healthcare self-referral in Niger state (Nigeria): The service users and healthcare providers perspective

The Ethics Committee of the Institute for Health Research has considered your application and has decided that the proposed research project should be approved with no amendments.

Please note that if it becomes necessary to make any substantive change to the research design, the sampling approach or the data collection methods a further application will be required.

Yours sincerely



Dr Yannis Pappas

Head of PhD School, Institute for Health Research

Chair of Institute for Health Research Ethics Committee

Appendix 19: IHR Ethics approval letter (Objective 2)

University of Bedfordshire

Institute for Health Research

Putteridge Bury

Hitchin Road

Luton

Beds LU2 8LE

21 November 2016

Francis Koce
Student number: 1316481

Dear Francis Koce

Re: IHREC Application No: IHREC693
Project Title: Understanding healthcare self-referral in Niger State (Nigeria): The service users and healthcare providers perspective

The Ethics Committee of the Institute for Health Research has considered your application and your application for research has been approved by Chair's action, subject to appropriate favourable ethics opinions by all participating organisations.

Please note that if it becomes necessary to make any substantive change to the research design, the sampling approach or the data collection methods a further application will be required.

Yours sincerely

Dr Yannis Pappas

Head of PhD School, Institute for Health Research

Chair of Institute for Health Research Ethics Committee

Appendix 20: NHREC Ethics approval letter (pilot for Objective 2)

National Health Research Ethics Committee of Nigeria (NHREC)

Promoting Highest Ethical and Scientific Standards for Health Research in Nigeria

Federal Ministry of Health

NHREC Protocol Number NHREC/01/01/2007- 28/07/2016

NHREC Approval Number NHREC/01/01/2007-10/08/2016

Date: 12th August 2016

RE: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDERS PERSPECTIVE

Health Research Ethics Committee (HREC) assigned number: NHREC/01/01/2007

Name of Student Supervisor:	Prof. Gurch Randhawa
Name of Student Investigator:	Francis Koce
Address of Student Investigator:	University of Berdfordshire,
	Institute for Health Research
	Putteridge Bury Hitchin Road Luton
	Beds LU2 8LE
	Francis.koce@study.beds.ac.uk; +44(0)7553838874

Date of receipt of valid application: **28/07/2016**

Date when final determination of research was made: **10/08/2016**

Notice of Expedited Committee Review and Approval

This is to inform you that the research described in the submitted protocol, the consent forms and other participant information materials for the second phase of the above titled study have been reviewed and given expedited committee approval by the National Health Research Ethics Committee.

This approval dates from 10/08/2016 to 09/08/2017. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study.* **If this is a multi-year research, endeavour to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.**

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the HREC. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Signed

Clement Adebamowo BMChB Hons (Jos), FWACS, FACS, DSc (Harvard)
Chairman, National Health Research Ethics Committee of Nigeria (NHREC)

Department of Health Planning, Research & Statistics
Federal Ministry of Health
11th Floor, Federal Secretariat Complex Phase III
Ahmadu Bello Way, Abuja

Tel: +234-09-523-8367
E-mail: chairman@nhrec.net, secretary@nhrec.net,
deskofficer@nhrec.net,
URL: http://www.nhrec.net,

Appendix 21: NHREC Ethics approval letter (Objective 2)

National Health Research Ethics Committee of Nigeria (NHREC)

Promoting Highest Ethical and Scientific Standards for Health Research in Nigeria

Federal Ministry of Health

NHREC Protocol Number NHREC/01/01/2007-26/11/2016

NHREC Approval Number NHREC/01/01/2007-22/12/2016

Date: 29 December, 2016

Re: UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA)

Health Research Committee assigned number: NHREC/01/01/2007

Name of student supervisor: Prof. Gurch Randhawa

Name of student Investigator: Francis Koce

Address of student Investigator: University of Berdfordshire,

Institute for Health Research

Putteridge Bury Hitchin Road Luton

Beds LU28LE

Francis.koce@study.bed.ac.uk; +44(0)7553838874

Date of receipt of valid application: 26/11/2016

Date when final determination of research was made: 22/12/2016

Notice of Expedited Committee Review and Approval

This is to inform you that the research described in the submitted protocol, the consent forms, advertisements and other participant information materials have been reviewed and *given expedited committee approval by the National Health Research Ethics Committee.*

This approval dates from 22/12/2016 to 21/12/2017. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the HREC assigned number and duration of HREC*

approval of the study. In multiyear research, endeavour to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the HREC. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Signed

Clement Adebamowo BMChB Hons (Jos), FWACS, FACS, DSc (Harvard)

Chairman, National Health Research Ethics Committee of Nigeria (NHREC)

Department of Health Planning, Research & Statistics
Federal Ministry of Health
11th Floor, Federal Secretariat Complex Phase III
Ahmadu Bello Way, Abuja

Tel: +234-09-523-8367
E-mail: chairman@nhrec.net, secretary@nhrec.net,
deskofficer@nhrec.net,
URL: http://www.nhrec.net,

ID Number…….

Appendix 22: Healthcare self-referral questionnaire (Interviewer administered) – Main study (Objective 2)

How to complete this questionnaire:

This questionnaire is made up of three main sections (A, B and C). In these sections a series of statements are provided that require your opinion on how much you agree or disagree with each statement. The interviewer will read out the statements and you have the choice of choosing one of the options from "strongly agree", "agree", "not sure", "disagree" or "strongly disagree". However, in section A, you will be asked some information about yourself such as your age, level of education and gender. The confidentiality of the information will be maintained, and no name will be provided on the questionnaire.

A. Predisposition to self-refer

A1-Socio-demographics

1)-Age…….

2)-Gender: Male/ Female

3)-Level of educational qualification: No formal education, primary school, secondary school, tertiary level,

4)-Employment status ……

5)-Marital status: Single, Married, Cohabiting, Separated, Divorced, Widowed

Statements	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
A2. Understanding of healthcare delivery in Nigeria					
6)-PHC facilities are only meant for minor cases*					
7)-PHC facilities are meant for the poor people					
8)-PHC facilities should be available where people live*					
9)-PHC facilities are only meant for immunization of children					
10)-PHC facilities are only meant for pregnant women					
11)-PHC facilities are not important in providing healthcare					
12)-PHC facilities should only be used where there are no general hospital					
13)-PHC facilities should only be used when the general hospitals are overcrowded					
14)-General hospitals have better equipment compared to the PHC facilities*					

15)-General hospital attend to more serious medical conditions compared to the PHC facilities*					
16)-The first health facility that should be attended when sick should be the general hospital					

B) Enablers to self-refer

Statements	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
B1. Role of healthcare providers					
17)-Staff in PHC facilities do not have much medical knowledge					
18)-Staff in PHC facilities may not know what is wrong with you					
19)-You are more likely to be seen by a doctor at the general hospital than at the PHC facility					
20)-You prefer to be seen by doctors compared to nurses and CHWs					
21)-You will attend PHC facilities only if they have doctors					

B2. Role of equipment's or facilities	Strongly agree	Agree	Not sure	Disagree	Strongly disagree

22)-PHC facilities lack basic equipment compared to the general hospital					
23)-You can't get your test done at PHC facilities					
24)-PHC buildings are not good looking					
25)-PHC facilities are mostly dirty					

B3. Advice from friends, relatives and others	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
26)-You know of the services provided at the general hospital that's why you came down to the general hospital					
27)- You were advised to come to the general hospital by your friend/ relatives					
28)-You know some of the staff at the general hospital that's why you came down to the general hospital					
29)-You need more information about the services of PHC facilities					

B4. Access to the healthcare facility	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
30)-It is cheaper to come to the general hospital for healthcare than going to the PHC facility					
31)-You can afford the cost of healthcare services at the general hospital					

32)-The general hospital is closer to where you live compared to the PHC facilities						
33)-PHC facilities have irregular opening hours which discourages you to attend						
34)-General hospital is opened 24 hours in a day which encourages you to attend						

C) Need to self-refer (Perceived need)

35)-Symptom	36)- Duration	37)-Severity				
		Very Mild	Mild	Moderate	Severe	Very Severe
1.						
2.						
3.						
4.						
5.						

*Items are meant to be reverse scored.

Thank you for participating in this study!

Appendix 23: Levels of agreement options

Levels of agreement (Sub-scales)

Levels of severity (Item 37)

Appendix 24: Advertisement for research assistants

Be a part of a research study!!

UNDERSTANDING HEALTHCARE SELF-REFERRAL IN NIGER STATE (NIGERIA): THE SERVICE USERS AND HEALTHCARE PROVIDERS PERSPECTIVE

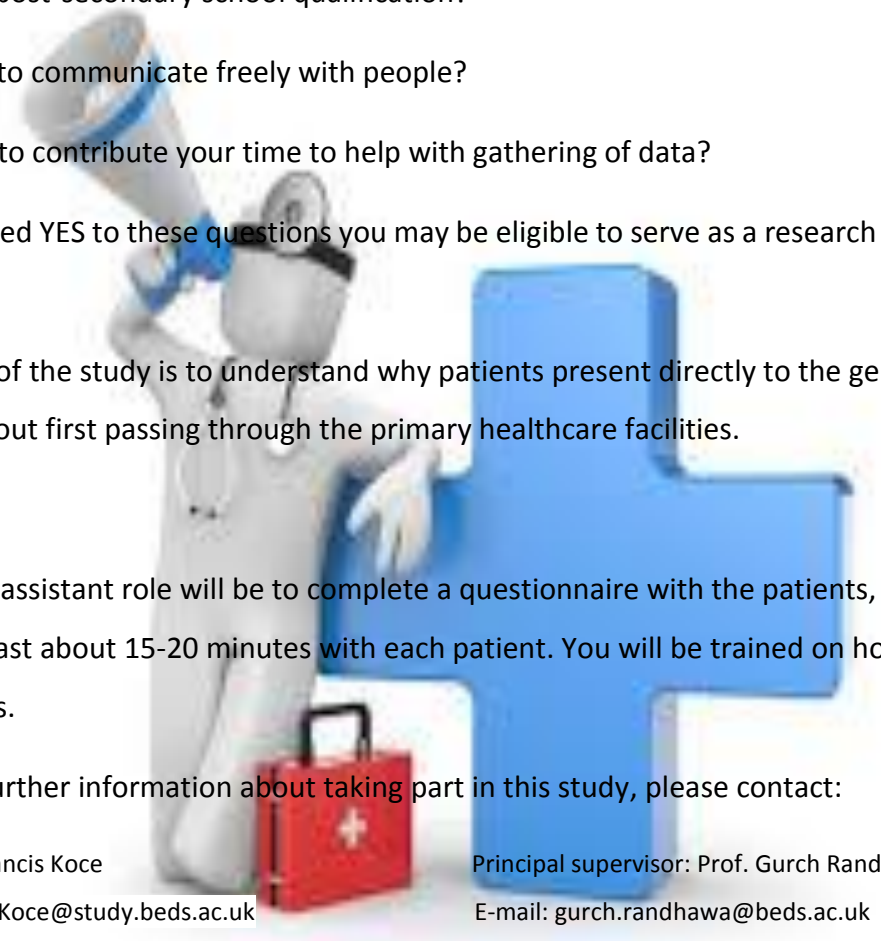
Do you have post-secondary school qualification?

Are you able to communicate freely with people?

Do you want to contribute your time to help with gathering of data?

If you answered YES to these questions you may be eligible to serve as a research assistant in this research.

The purpose of the study is to understand why patients present directly to the general hospital without first passing through the primary healthcare facilities.



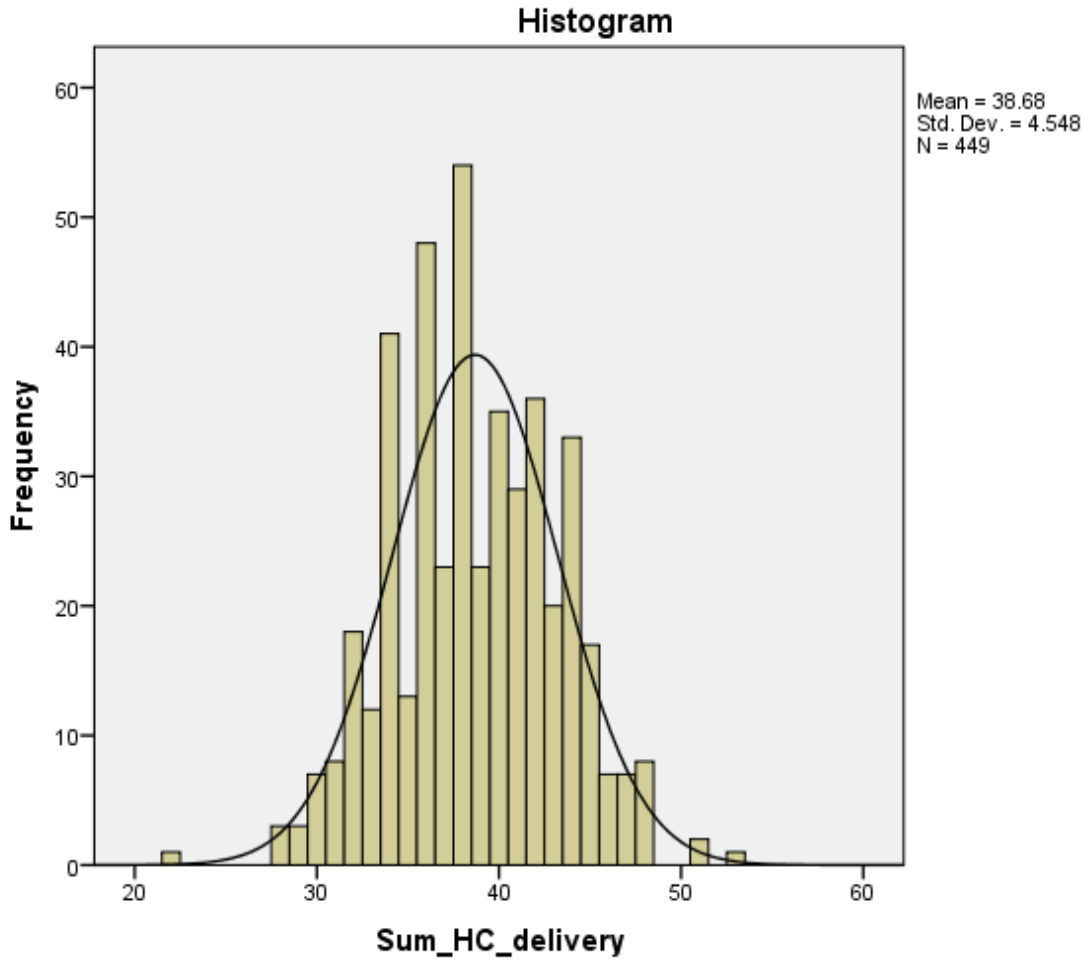
The research assistant role will be to complete a questionnaire with the patients, this is expected to last about 15-20 minutes with each patient. You will be trained on how to carry out your roles.

If you need further information about taking part in this study, please contact:

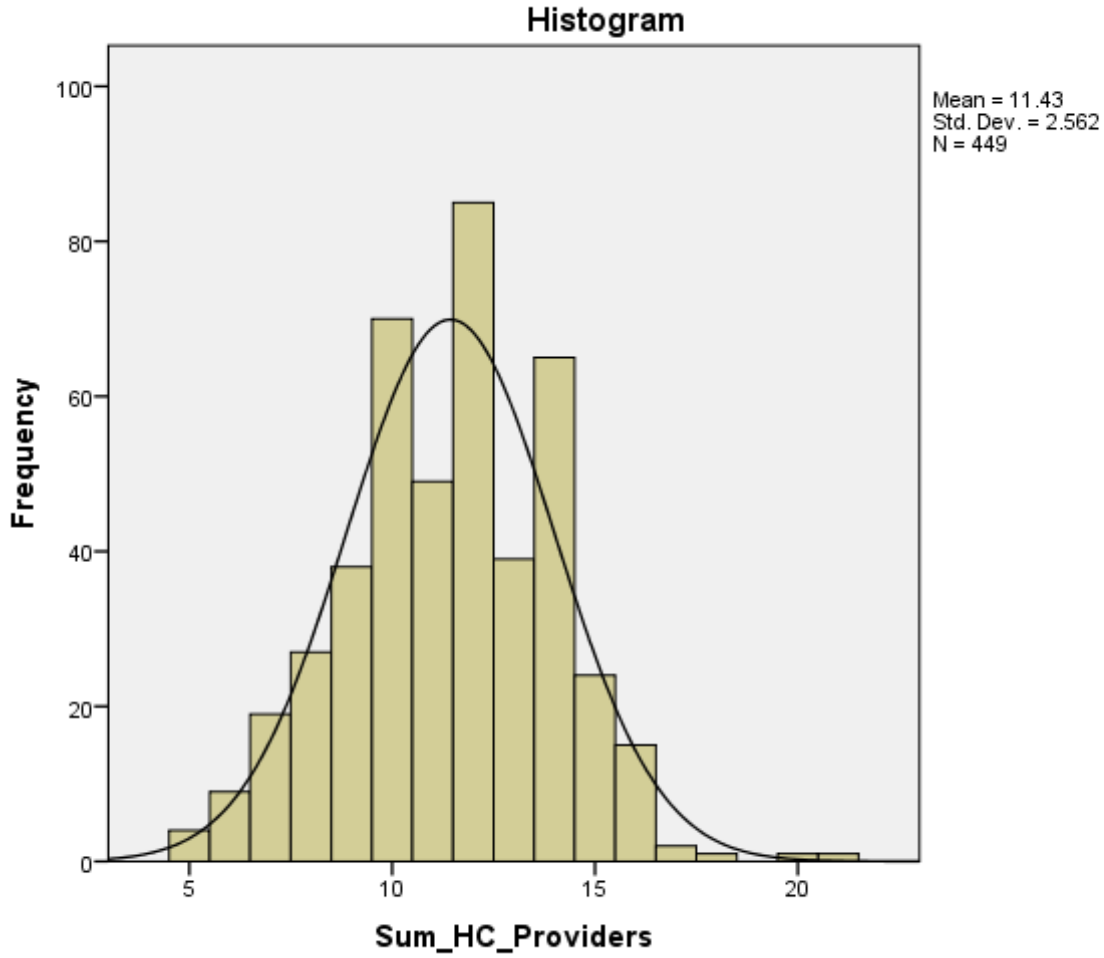
Researcher: Francis Koce
E-mail: Francis.Koce@study.beds.ac.uk
Phone number: +44(0)7553838874.
+2348087891923

Principal supervisor: Prof. Gurch Randhawa
E-mail: gurch.randhawa@beds.ac.uk
Phone number: +44 (0)1582 743797

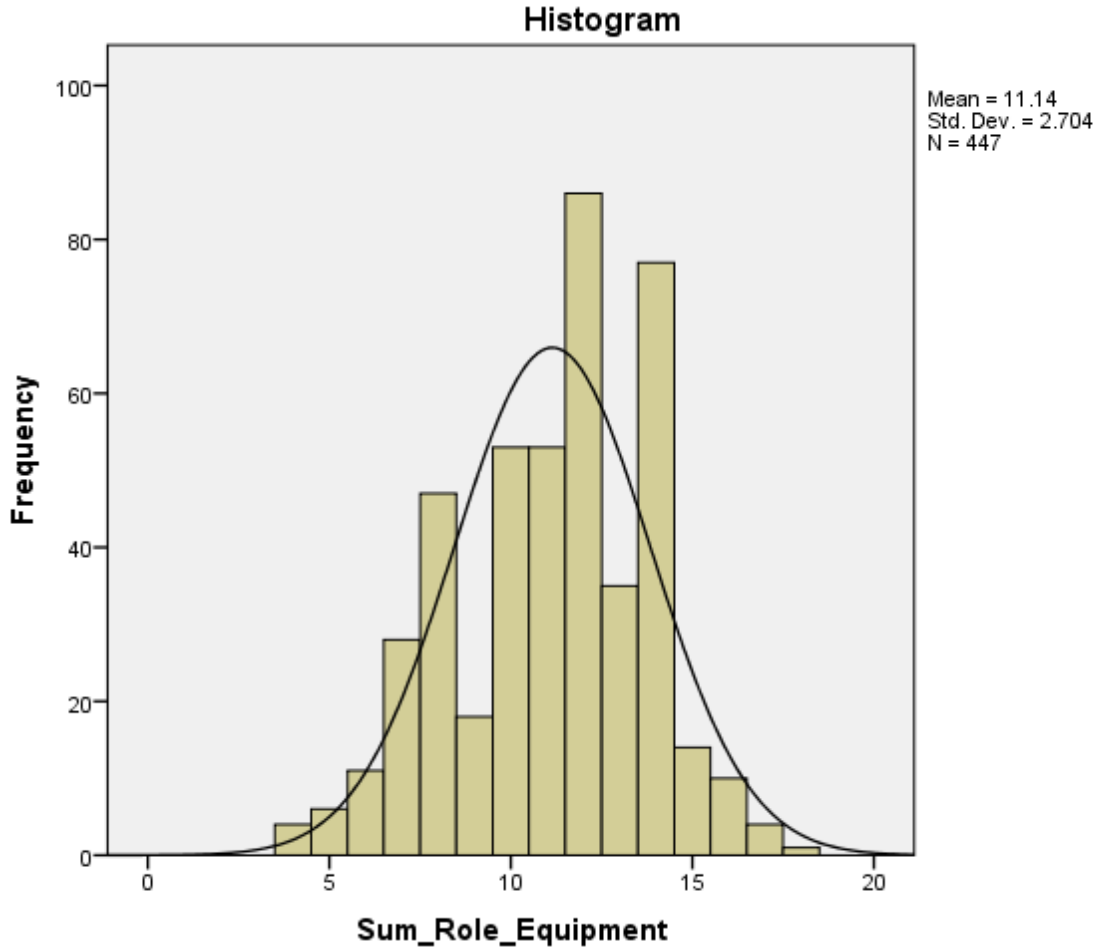
Appendix 25a-e: Histograms of the summated sub-scales



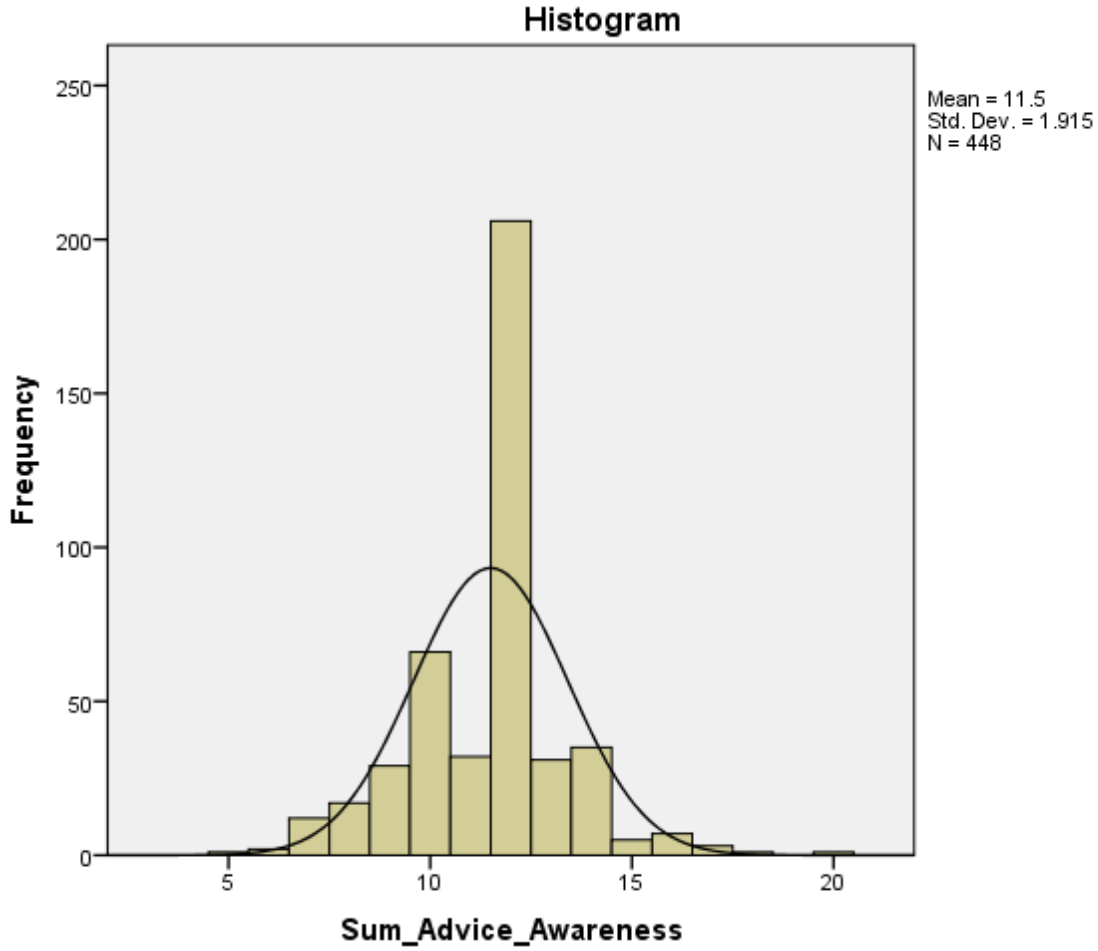
25a: Histogram of sub-scale on understanding of healthcare delivery



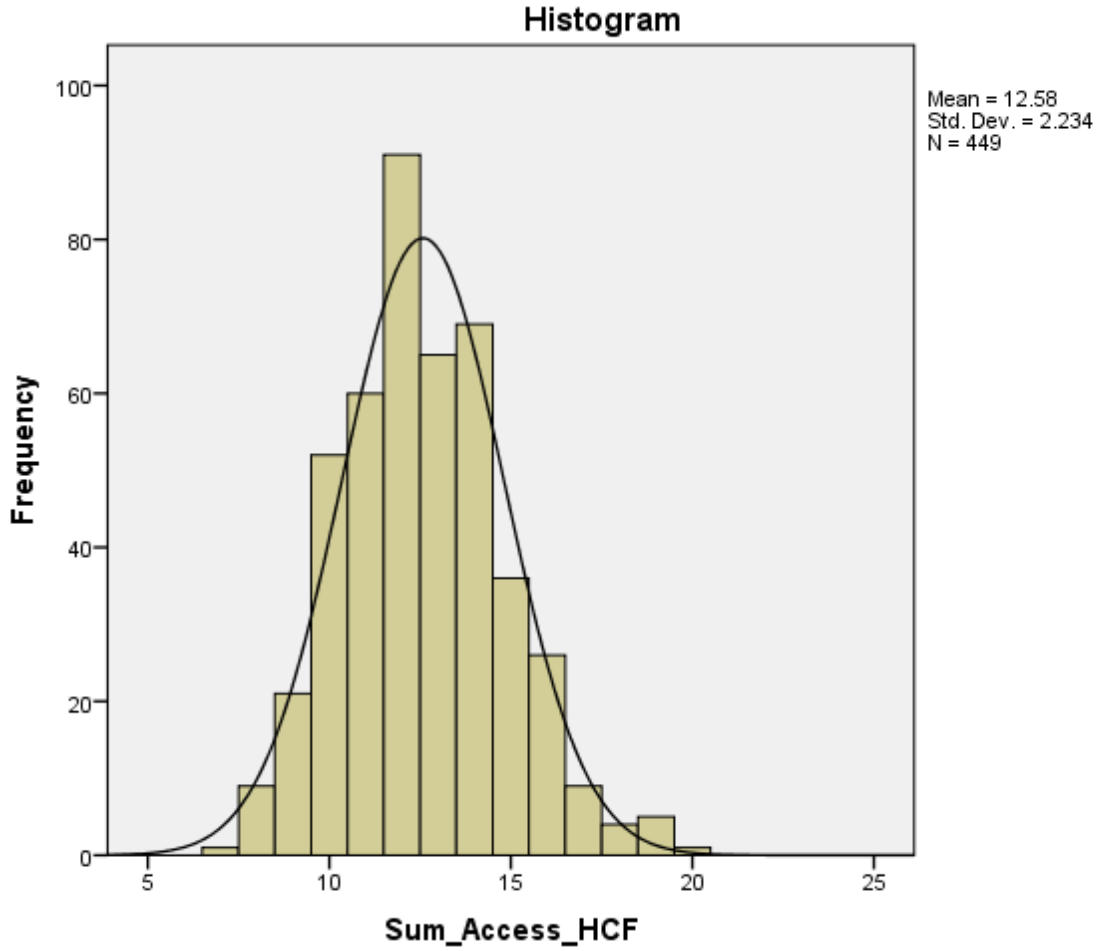
25b: Histogram of sub-scale on role of healthcare providers



25c: Histogram of sub-scale on role of equipment



25d: Histogram of sub-scale on advice and awareness



25e: Histogram of sub-scale on access to healthcare facility

Appendix 26: Summary of participant's responses to the questionnaire items (n=449)

Statements	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)	Missing N (%)
A2. Understanding of healthcare delivery in Nigeria						
6)-PHC facilities are only meant for minor cases*	47 (10.5)	225 (50.1)	28 (6.2)	138 (30.7)	11 (2.4)	0 (0.0)
7)-PHC facilities are meant for the poor people	22 (4.9)	175 (39)	22 (4.9)	202 (45)	28 (6.2)	0 (0.0)
8)-PHC facilities should be available where people live*	88 (19.6)	332 (73.9)	7 (1.6)	19 (4.2)	3 (0.7)	0 (0.0)
9)-PHC facilities are only meant for immunization of children	15 (3.3)	70 (15.6)	17 (3.8)	295 (65.7)	52 (11.6)	0 (0.0)
10)-PHC facilities are only meant for pregnant women	11 (2.4)	48 (10.7)	15 (3.3)	325 (72.4)	50 (11.1)	0 (0.0)
11)-PHC facilities are not important in providing healthcare	12 (2.7)	130 (29)	16 (3.6)	243 (54.1)	48 (10.7)	0 (0.0)
12)-PHC facilities should only be used where there are no general hospitals	21 (4.7)	225 (50.1)	12 (2.7)	175 (39)	16 (3.6)	0 (0.0)

13)-PHC facilities should only be used when the general hospitals are overcrowded	23 (5.1)	203 (45.2)	15 (3.3)	183 (40.8)	25 (5.6)	0 (0.0)
14)-General hospitals have better equipment compared to the PHC facilities*	212 (47.2)	219 (48.8)	5 (1.1)	12 (2.7)	1 (0.2)	0 (0.0)
15)-General hospitals attend to more serious medical conditions compared to the PHC facilities*	179 (39.9)	254 (56.6)	2 (0.4)	10 (2.2)	4 (0.9)	0 (0.0)
16)-The first health facility that should be attended when sick should be the general hospital	48 (10.7)	205 (45.7)	25 (5.6)	157 (35)	14 (3.1)	0 (0.0)

B) Enablers to self-refer

Statements	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)	Missing N (%)
B1. Role of healthcare providers						
17)-Staff in PHC facilities do not have much medical knowledge	28 (6.2)	171 (38.1)	39 (8.7)	201 (44.8)	10 (2.2)	0 (0.0)
18)-Staff in PHC facilities may not know what is wrong with you	22 (4.9)	164 (36.5)	49 (10.9)	201 (44.8)	13 (2.9)	0 (0.0)

19)-You are more likely to be seen by a doctor at the general hospital than at the PHC facility	185 (41.2)	253 (56.3)	5 (1.1)	5(1.1)	1 (0.2)	0 (0.0)
20)-You prefer to be seen by doctors compared to nurses and CHWs	175 (39)	265 (59)	3 (0.7)	6 (1.3)	0 (0.0)	0 (0.0)
21)-You will attend PHC facilities only if they have doctors	86 (19.2)	286 (63.7)	14 (3.1)	57 (12.7)	6 (1.3)	0 (0.0)

B2. Role of equipment or facilities	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)	Missing N (%)
22)-PHC facilities lack basic equipment compared to the general hospital	82 (18.3)	327 (72.8)	14 (3.1)	24 (5.3)	2 (0.4)	0 (0.0)
23)-You can't get your test done at PHC facilities	43 (9.6)	201 (44.8)	44 (9.8)	151 (33.6)	9 (2)	1 (0.2)
24)-PHC buildings are not good looking	19 (4.2)	119 (26.5)	46 (10.2)	246 (54.8)	18 (4.0)	1 (0.2)
25)-PHC facilities are mostly dirty	27 (6)	115 (25.6)	83 (18.5)	202 (45)	22 (4.9)	0 (0.0)

B3. Advice from friends, relatives and others	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)	Missing N (%)
26)-You know of the services provided at the general hospital that's why you came down to the general hospital	92 (20.5)	327 (72.8)	9 (2)	15 (3.3)	6 (1.3)	0 (0.0)
27)- You were advised to come to the general hospital by your friend/ relatives	24 (5.3)	80 (17.8)	2 (0.4)	297 (66.1)	45 (10)	1 (0.2)
28)-You know some of the staff at the general hospital that's why you came down to the general hospital	4 (0.9)	43 (9.6)	4 (0.9)	333 (74.2)	65 (14.5)	0 (0.0)
29)-You need more information about the services of PHC facilities	42 (9.4)	360 (80.2)	20 (4.5)	23 (5.1)	4 (0.9)	0 (0.0)

B4. Access to the healthcare facility	Strongly agree N (%)	Agree N (%)	Not sure N (%)	Disagree N (%)	Strongly disagree N (%)	Missing N (%)
30)-It is cheaper to come to the general hospital for healthcare than going to the PHC facility	21 (4.7)	234 (52.1)	50 (11.1)	131 (29.2)	13 (2.9)	0 (0.0)
31)-You can afford the cost of healthcare services at the general hospital	24 (5.3)	366 (81.5)	32 (7.1)	24 (5.3)	3 (0.7)	0 (0.0)

32)-The general hospital is closer to where you live compared to the PHC facilities	6 (1.3)	98 (21.8)	16 (3.6)	282 (62.8)	47 (10.5)	0 (0.0)
33)-PHC facilities have irregular opening hours which discourages you to attend	49 (10.9)	264 (58.8)	42 (9.4)	81 (18)	13 (2.9)	0 (0.0)
34)-General hospital is opened 24 hours in a day which encourages you to attend	177 (39.4)	257 (57.2)	3 (0.7)	9 (2)	3 (0.7)	0 (0.0)

*Reversed scored prior to summing the items of the sub-scale

C) Need to self-refer (Perceived need)

35)

Symptom	N (%)
1.Cardio-respiratory symptoms	62 (13.8%)
2.Gastrointestinal symptoms	82 (18.3%)
3.Genitourinary symptoms	39 (8.7%)
4.Musculoskeletal symptoms	128 (28.5%)
5.Others	138 (30.7%)

36)

Duration	N (%)
Less than 1 day	3 (0.7%)
One day to seven days	296 (65.9%)
Greater than 7 days to 14 days	72 (16%)
Greater than 14 days	77 (17.1%)
Missing	1 (0.2%)

37)-**Severity**

Very Mild N (%)	Mild N (%)	Moderate N (%)	Severe N (%)	Very Severe N (%)
32 (7.1%)	90 (20%)	162 (36.1%)	130 (29%)	35 (7.8%)